

Integrated Training Roadmap for Inspectors Workshop

Module 1 - Establishing Number of Inspectors

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Staffing Requirements

ICAO Doc. 9734



Establishing a State Civil Aviation System

- A Civil Aviation system must be established on the basis of national legislation and structured to:
 - An appropriately organized, funded and empowered civil aviation system must be established on the basis of national legislation and structured to:
 - Effectively fulfil the tasks that it is expected to undertake.
 - Fulfil State obligations as provided for in the Convention
- The State civil Aviation System must be appropriately:
 - Organized
 - Funded
 - Empowered



Establishing a State Civil Aviation System

To achieve this, the state needs to:

- Establish an appropriate and practical organization,
- Employ the necessary personnel, including technical personnel and support staff,

to carry out the various functions of a national civil aviation authority.

- The scope of authority and responsibility of a civil aviation system should not vary substantially from state to state, and that whatever the size of the CAA, it should always ensure that a proper system of checks and balances is maintained.



Staffing Requirements

- The state civil aviation system must be properly organized and **staffed with qualified personnel** capable of accomplishing the required wide range of technical duties involved in safety oversight.
- Should also enjoy **conditions of service and remuneration** consistent with their education, technical knowledge and experience and **comparable to the operator's staff** whose activities they will inspect and supervise.
- The cost of recruiting and retaining qualified technical personnel who **satisfactorily** meet the requirements of the profession:
 - Represents a significant financial commitment, and
 - May require revisions to long-standing policies and regulations regarding remuneration for qualified technical personnel.



Staffing Requirements

- Consequences of not having appropriate recruitment policies, terms of employment and practices in place:
 - CAA does not become a competitive employer.
 - It is difficult to maintain a **stable number of inspectors**.
 - The competence of inspectors may be affected, due to the lack of investment in training.
 - Discouragement of inspectors, making it difficult to carry out oversight tasks competently and efficiently.
- It is recognized that some States (particularly those in which the level of commercial air transport activity is low) may not be in a position to meet their staffing requirements due to lack of qualified local personnel or the inability to obtain the necessary budgetary allocations.



Staffing Requirements

- When it is not feasible to maintain a full range of CAA technical staff to carry out the complete CAA safety oversight function  One option is to establish a small, technically competent and experienced nucleus of CAA technical personnel.
- To augment this nucleus and be able to carry out its full safety oversight responsibilities, the CAA may:
 - Agreement with other States for assistance, on a part-time or cooperative basis, in performing certain detailed tasks requiring specialized skills and experience.
 - The employment of a competent commercial organization that would supply qualified personnel as needed.



It is in no way that those *organisations* are relieved of the ultimate responsibility for the safe, regular and efficient conduct of aviation within CAA jurisdiction.

CAA Action Plan



CAA Action Plan

- The CAA Action Plan is the basis for preparing the Production Plan, and should take into account four strategic objectives focused on improving public service:
 - The first focuses on supervising the proper operation of the civil aviation services, whether it is safety or security.
 - The second seeks to guarantee the rights of passengers and improve the quality of services.
 - The third focuses on improving the efficiency and competitiveness of the Spanish air sector and doing it in a sustainable way with the environment.
 - The fourth is the pursuit of excellence in CAA management and its focus on stakeholders.

CAA Action Plan

→ The Activity Planning of a CAA, should take into account the following specific activities and plans:

→ **1. Inspection plan and preventive activities.**

CAA's most important activity in the field of aviation safety oversight is inspection.

The Safety Inspection and Preventive Action Plan is the tool that the CAA uses to plan and monitor supervisory activities.

→ **2. Aerodrome certification plan.**

The certification of aerodromes for public use is a key activity to ensure the adequacy of state airports to national and international standards.



CAA Action Plan



→ 3. Regulatory development initiative plan.

In order to update the national regulations in force, in accordance with international reference standards.

→ 4. Internal and external audit plan.

The main international regulations regarding Airworthiness, Operations, Flight Personnel, Air Traffic Controllers, Air Navigation Service Providers (ANS), Air Traffic Management (ATM) and Airports include the mandatory nature of a management system by the Authority Competent, as well as the implementation of an Internal Audit and Risk Management procedure.

CAA is audited by various external organizations, such as ICAO, FAA, EASA etc., with the aim of verifying the adequacy of the CAA's activities in the various fields: technical, economic, financial, personal, budgetary, accounting, quality, etc.

CAA Action Plan



→ 5. Economic planning.

Planning and financial resources are vital to achieving the goals set out in the strategic and action plans.

→ 6. Staff planning.

Staff planning is basic for the correct undertaking of strategic and action plans. Human capital is one of CAA's strong points, whose skills and qualifications are very diverse, to undertake the various actions within CAA's global activity.

This contributes to the achievement of a multidisciplinary and heterogeneous team, maximizing the value contributed to the activities carried out.

→ 7. Information systems planning.

It is necessary to have satisfied the citizens, stakeholders and groups with which the CAA interacts, who are increasingly demanding new channels of interaction with the Administration.

CAA Action Plan

- Example of activity volume of a CAA.
- AESA provides services to a group of organizations and professionals in different areas of the aviation sector whose most significant data is shown below:

OPS & AIR	
Commercial air transport companies with an air operator certificate	44
• Aeroplane	35
• Helicopter	9
Continuing airworthiness maintenance organisations (CAMO)	101
Part 145 maintenance organisations	125
Aerial Works operators	121
Special operations Operators (Firefighting & Search & Rescue)	20
Drone operators	2.715
PERSONNEL LICENSING	
Aircraft maintenance Licenses	4.047
Airline Transport Pilot Licenses	4.872
Commercial Pilot Licenses	3.197
Private Pilot Licenses	2.691
Cabin crew	18.229
Examinators	553
TRAINING	
Part 147 Maintenance training organisations	16
Air training organisations (ATOs)	119
Drone pilot training organisations	74
Air traffic controller training organisations	7
Simulator training devices	46

CAA Action Plan

→ Example of activity volume of a CAA (Cont.)

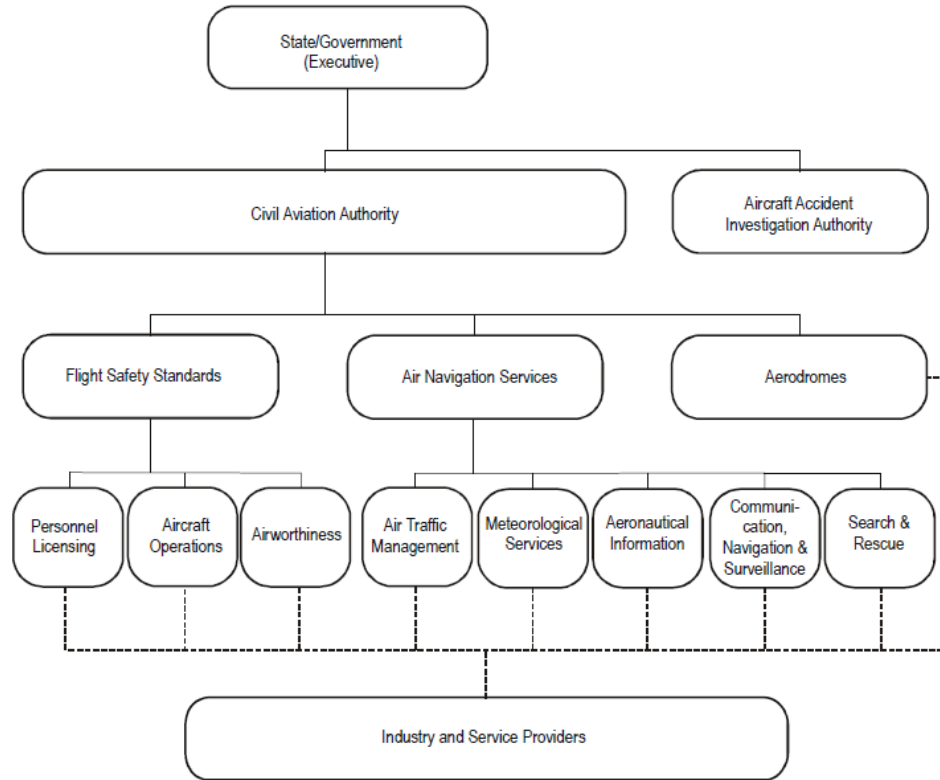
AIR NAVIGATION	
Spanish controlled airspace	2,2 M (Km²)
Flight information Regions (FIRs)	3
Air Navigation providers	5
Control towers & Control centers	62
Equipments (ILS, VOR, radar, etc.)	340
SPANISH AIRPORTS	
Passenger traffic	230M
Air operations	2M
Air cargo	796.000 (ton)
Civil airports	41
Military air bases open to air traffic	7
Heliports	2
Obstacle restriction authorisations	7.000
REGISTERED AIRCRAFTS	
Aeroplanes	6.407
Helicopters	670

Source: AESA. Annual and Multiannual Action Plan. 2018 - 2021

Assessing a CAA Structure



Typical CAA Structure (ICAO Doc. 9734)



Legend:

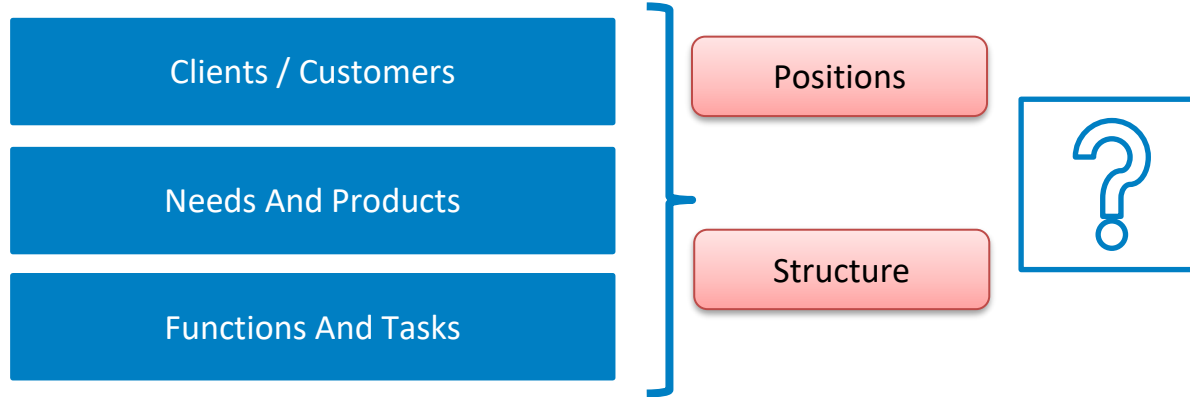
— possible line of authority/responsibility

- - - - - possible line of licensing, certification, authorization and/or approval to perform an aviation-related activity

- CAA must provide competent inspectors to each of the Departments / Divisions to fulfil its responsibilities, in a cost-effective manner:
- By itself,
- Through cooperative inspection arrangements with neighboring States, or
- Through regional arrangements.

Assessing a CAA Structure

List of elements we have to consider for
assesing the *structure* of the CAA



Assessing a CAA Structure

- The competent authority shall establish and maintain a management system, including a sufficient number of personnel to perform its tasks and discharge its responsibilities:
 - Such personnel shall be **qualified** to perform their allocated tasks and have the necessary knowledge, experience, initial and recurrent training to ensure continuing competence.
 - A system shall be in place to plan the **availability of personnel**, in order to ensure the proper completion of all tasks.



Assessing a CAA Structure

- Recommended to establish an administrative process that takes place within a CAA oversight activities and that involves making sure that sufficient qualified staff and other necessary items are available and ready to fulfil the CAA obligations according to the schedule specified.



CAA Production Planning

Assessing a CAA Structure

- All of the following should be considered when deciding upon the required organisational structure and to establish a realistic Production Plan:
 - The number of certificates, attestations, authorisations and approvals to be issued.
 - The number of declared organisations.
 - The number of certified or authorised persons and organisations exercising an activity, including persons or organisations certified or authorised by other CAAs.
 - The possible use of qualified entities and of resources of other competent authorities to fulfil the continuing oversight obligations.
 - The level of civil aviation activity in terms of
 - Number and complexity of aircraft operated.
 - Size and complexity of the State's aviation industry.
 - The potential growth of activities in the field of civil aviation.

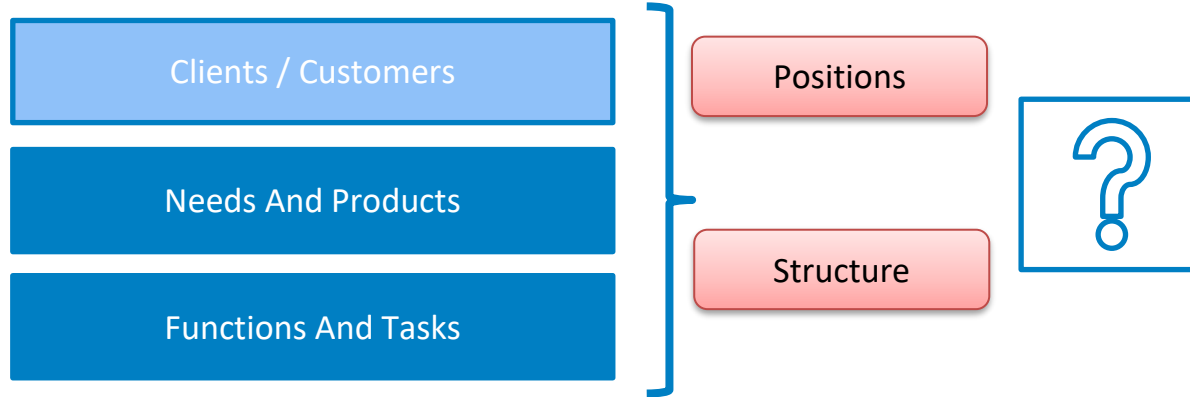
Assessing a CAA Structure

- The set-up of the organisational structure should ensure that the various **tasks and obligations** of the CAA **do not rely solely on individuals**.
- A continuous and undisturbed fulfilment of these tasks and obligations of the CAA should also be guaranteed in case of illness, accident or leave of individual employees.

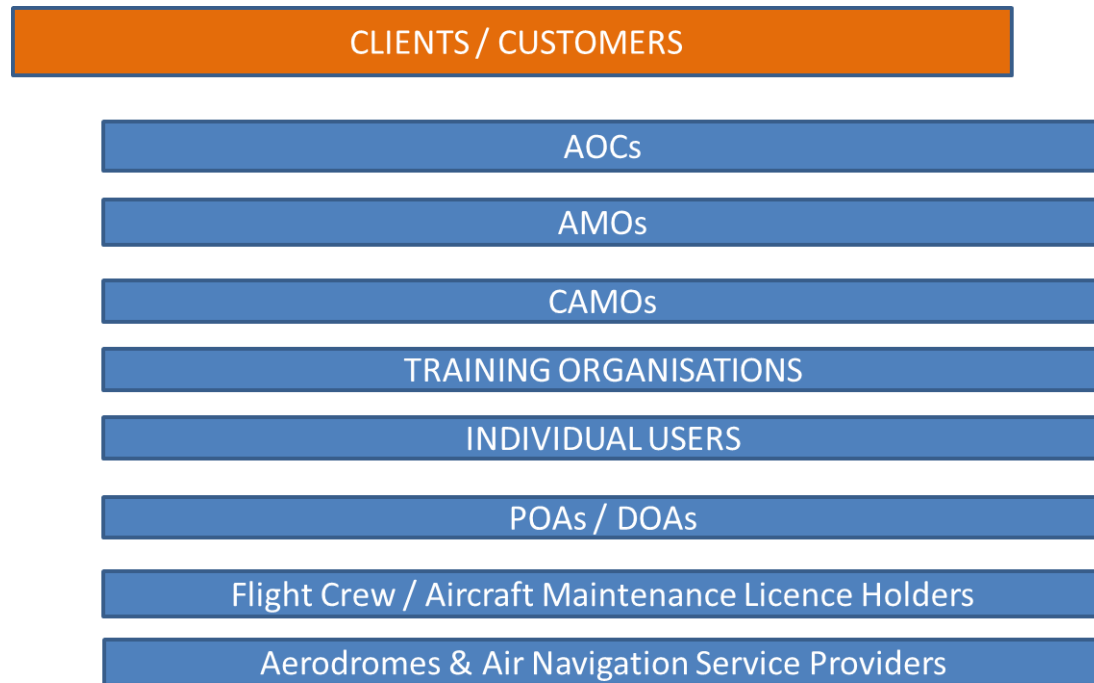


Assessing a CAA Structure

List of elements we have to consider for
assesing the *structure* of the CAA



Assessing a CAA Structure



Assessing a CAA Structure

MORE CLIENTS

CAA Itself

Other CAAs

Aircraft Accident Investigation Authorities

Other international Organizations (ICAO, EASA, FAA, etc.)

National Police and Military Police

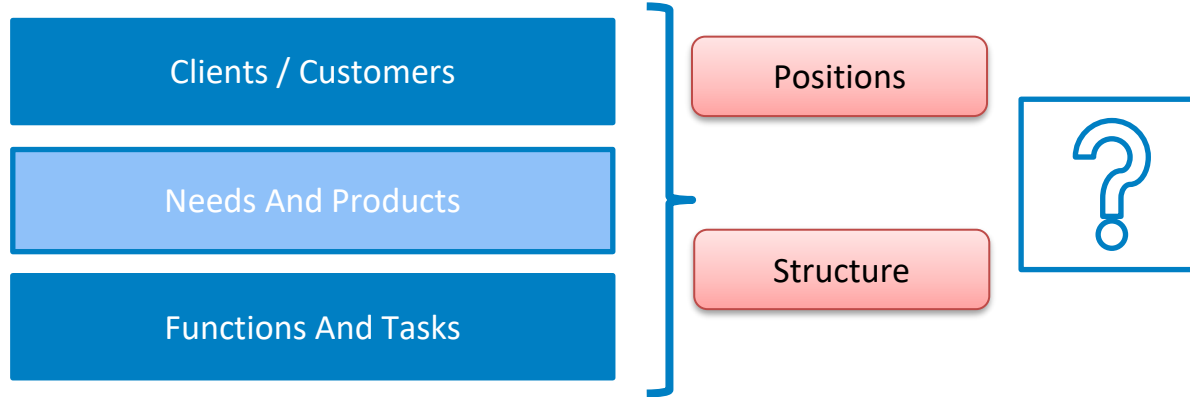
Fire Fighting Organizations

Aircrafts Owners

Court

Assessing a CAA Structure

List of elements we have to consider for
assesing the *structure* of the CAA



Assessing a CAA Structure



Assessing a CAA Structure

MORE NEEDS

STANDARD PROCEDURES

TRAINING SESSIONS

PARTICIPATION IN WORK GROUPS

FEEDBACK TO SAFETY RECOMMENDATIONS (Aircr. Accidents Invs.)

IMPLEMENTATION OF THE SAFETY RECOMMENDATIONS ISSUED

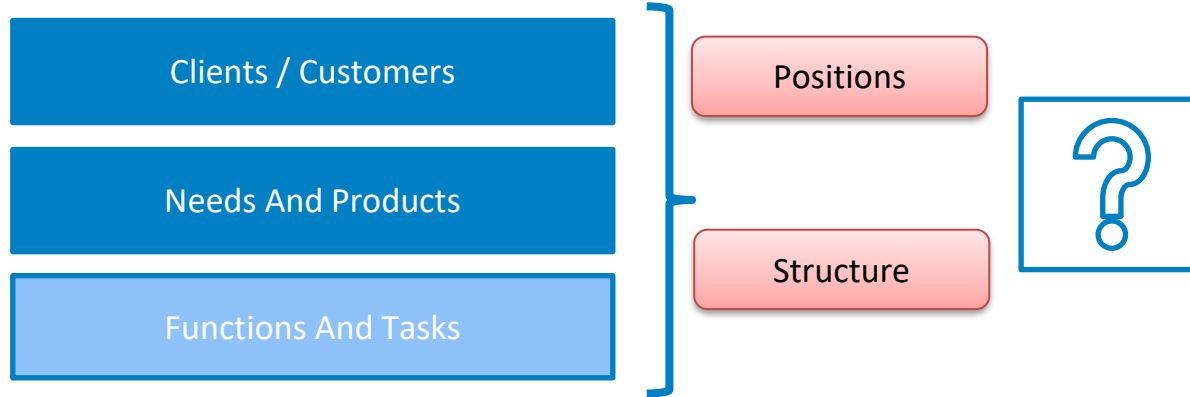
INTERNATIONAL MEETINGS ATTENDANCE

83 BIS AGREEMENTS

CAA ACTION PLAN ACTIVITIES & OTHERS

Assessing a CAA Structure

List of elements we have to consider for
assesing the *structure* of the CAA



Assessing a CAA Structure

FUNCTIONS

Establishment of Criteria

Management of Sanction Proposals

Coordination of Initial Certifications

Coordination of Continuing Oversight

Assessment of new regulations and proposals of change

Management of inspector training

Design procedures

ETC.

Assessing a CAA Structure

TASKS

Carry out Inspections (Initial & changes)

Issuance of Certificates

Carry out Continuing Oversight Inspections / Audits

Hold meetings with the Accountable Managers

Review and approve Personnel Licences

Review and approve organisation Manuals

Issue of Airworthiness Certificates

ETC.

Staff Calculation



Staff Calculation

- CAA should establish a staffing calculation procedure to analyse and determine the demand of personnel to achieve an efficient safety oversight system.
- CAA staffing should come from a realistic CAA Production Plan.
- Staffing is often used to refer a set of processes through which an organization applies human resources to the work needed for it to achieve its goals; including:
 - Recruitment
 - Selection of personnel
 - Adequacy of the job position
 - Training

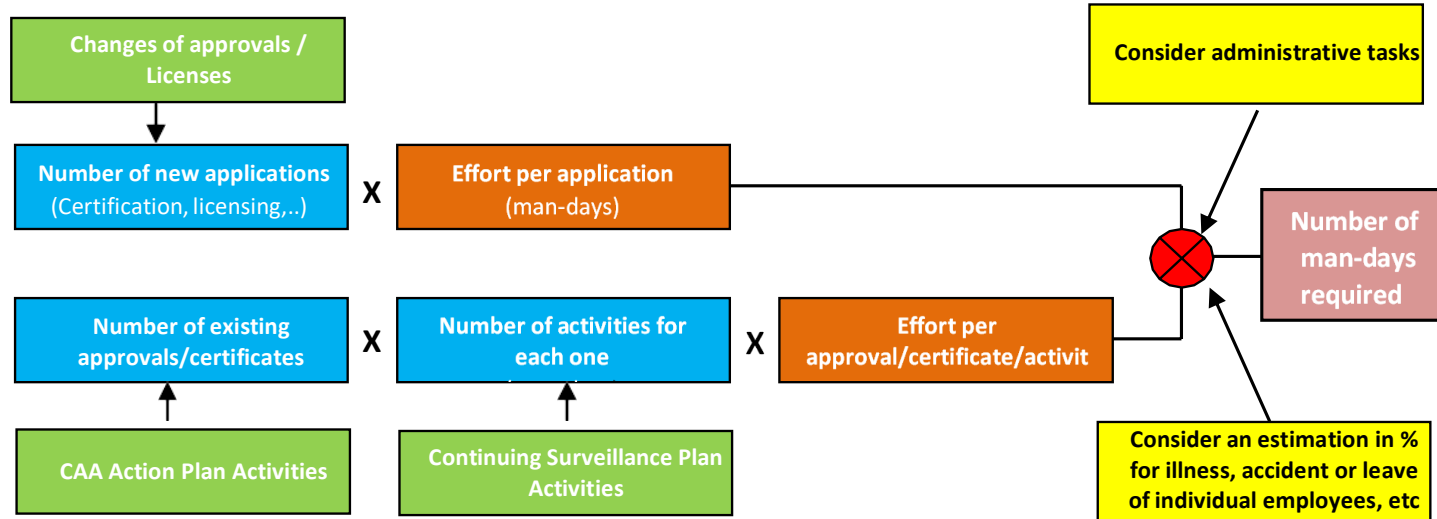


Staff Calculation

- Staffing enables CAA to determine the right number of people with the right skill sets in the right positions to accomplish the responsibilities of the job in a satisfactory manner.
- The demand for aviation safety inspectors is estimated in the staffing model by estimating the activities of inspector in their practical working environment.
- Basic factors affecting the demand for work, such as the number of certificates, public use airports, and aircraft, generate the demand for various activities.
- Finally, inspector requirements are estimated by dividing total activities by the average number of the identified activities that can be performed by an inspector.

Staff Calculation

→ Methodology for staff calculation.



Staff Calculation - Example

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
PART 145				
Initial approval				
MOE approval	1	5	5	Assuming 1 new organization a year, and 1 week of work
Inspections /audits	2	5	10	Assuming 2 inspections of 2.5 days each
Continuing Surveillance Planning	10	3	15	1 inspector, 1 full inspection every 2 years, 3 days inspection
MOE changes	3	3	9	30% of the existing ones, 3 working days
Product inspection	30	2	30	Assuming 3 products per center, every two years, 2 days inspection
Travels	5,5		5,5	Assuming a loss in travels of 10% of the total inspection days
			74,5	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
CAMO				
Aprob inicial				
CAME approval	1	5	5	Assuming 1 new companies a year, 2 weeks work
Inspections /audits	2	5	10	Assuming 2 inspections of 2.5 days, 1 inspector
Continuing Surveillance Planning	11	3	33	2 annual inspections, 3 days, 1 inspector
CAME changes	3,3	3	9,9	30% changes, 3 working days
Product inspection	33	2	33	1 product inspection per year, 2 days
Reliability reports	13,2	1	13,2	40% of quarterly reports, 1 day per report
Travels			7,6	10 % inspection days
			111,7	

Staff Calculation - Example

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
SUBP F (AMO not PART-145)				
Initial approval				
MOE approval	1	5	5	Assuming 1 new center per year, and 1 working week, 1 inspector
Inspections /audits	1	5	5	Assuming 2 inspections of 2.5 days each, 1 inspector
Continuing Surveillance Planning	2	1	2	1 inspector, 0.5 year full inspections, 2 days inspection
MOE changes	0,6	15	9	30 %
Product inspection	6	2	6	assuming 3 products per organisation year
Travels	0,7		0,7	Assuming a loss in travels of 10% of the total inspection days
			27,7	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
AOC (Airworthiness part)				
Initial approval				
MOE approval	1	5	5	Assuming 1 new year company, and 1 work week, 1 inspector
Inspections /audits	2	5	10	Assuming 2 inspections of 2.5 days each, 1 inspector
Continuing Surveillance Planning	7	2	14	1 inspector, 1 full year inspection, 2 days inspection
OM changes	2,1	15	31,5	30 %
Product inspection	3	2	6	assuming 1 product per organisation year, 1 inspector, 2 days
Travels	2,4		2,4	Assuming a loss in travels of 10% of the total inspection days
			68,9	

Staff Calculation - Example

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
DG				
Continuing Surveillance Planning	7	2	14	2 inspections / year, 1 day, 1 inspector
Travels			1,4	10 % tiempo de inspeccion
			15,4	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
SANA				
Reports & closure	98	0,5	49	1/2 day per report
			49	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
LEASING				
Documented review & Physical survey	12	2	24	Assuming 1 inspection of 2 days
Travels			2,4	10%
			26,4	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
PERMIT TO FLY				
	112	0,5	56	1/2 day per application
			56	

Staff Calculation - Example

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
CofA				
New issuance	28	2	56	
Renewal	175	2	350	
			406	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
Technical incidents				
Notification	120	0,071	8,52	1/2 hour per incident
Analysis	12	3	36	10% analyzed, 3 days
			44,52	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
Changes to aircrafts (Part 21)				
Technical Visa	303	0,14	42,42	1 hour per application
Minor modifications	5	2	10	2 days per application
			52,42	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
Amateur buildings				
Manufacturing & tests	6	2	12	3 inspections, assuming 1 inspection/year of 2 days of duration
CofA renewal	350	1	175	Every 2 years, 1 inspection day
			187	

Staff Calculation - Example

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
National AMO				
Initial approval				
MOE approval	0	5	0	Assuming 0 new year organisations and 1 work week
Inspections /audits	0	8	0	Assuming 2 inspections of 2.5 days each
Continuing Surveillance Planning	1	2	2	1 inspector, 1 inspection/year, 2 days per inspection
MOE changes	0,3	15	4,5	30 %
Product inspection	3	2	6	Assuming 3 per organisation
Travels	0,4		0,4	Assuming a loss in travel of 20% of the total inspection days
			12,9	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
OTHERS				
Training	5	220	55	5% of total time for training
Customer service	5	220	157,1	1 hour/ day
Internal meetings	5	220	48,6	1 meeting of 2 hours per week
			260,7	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
ULM				
CofA issuance	1	3	3	
Surveillance				1 per month
Travels				20% os inspection time
			3	

Staff Calculation - Example

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
Fire fighting bases				
Inspection	18	1,5	27	1 per year, 1,5 inspection days per base
			27	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
Aerial Works				
Inspection	26	1	26	1 inspection day per aircraft
Travels			5,2	20%
			31,2	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
Pilot licensing				
Lecenses	377	0,14	52,8	1 hr per license
			52,8	

	N.º ENTITIES	MAN-DAYS	TOTAL MAN-DAYS	OBSERVATIONS
ULM training organisations				
Authorisation	1	2	2	1 new application per year, 2 days for inspection
Surveillance	15	1	7,5	1 every 2 years, 1 inspection day
Travels			1,9	20%
			11,4	

Staff Calculation - Example

SUMMARY			
PART 145	74,5	Technical incidents	44,52
CAMO	111,7	Changes of aircrafts	52,42
AMO not PART 145	27,7	National AMO	12,9
AOC	68,9	Amateur buildings	187
DG	15,4	ULM	3
SANA	49	Fire fighting bases	27
LEASING	26,4	Aerial works	31,2
PERMIT TO FLY	56	Pilot licensing	52,78
CofA	406	ULM training organisations	11,4
		Others	260,71
MAN-DAYS		WORKING DAYS/YEAR	STAFF REQUIRED
TOTAL	1518,53	220	6,9

Staff Calculation - Example

TECHNICAL STAFF NEEDS		
CURRENT TECHNICAL STAFF	EXTERNAL ORGANISATIONS STAFF	REQUIRED STAFF
5	0	6,9

Technical Deficit: 1,9

ADMINISTRATIVE WORKLOAD	
The administrative workload is assumed to be 35% of the Technical workload	
Technical Man-days required: 1,518,53	REQUIRED STAFF
Administrative workload: 531,49	2,42 (*)
(*) Assuming 220 working days a year.	

ADMINISTRATIVE STAFF NEEDS		
CURRENT ADMINISTRATIVE STAFF	EXTERNAL ORGANISATIONS STAFF	REQUIRED STAFF
2	0	2,42

Administrative Deficit: 0,42

Staff Calculation - Example

→ Example of staffing calculation

No	Tasks	Days per task (1)	Volume of task (2)	Days required (3)	Staff required (4)							Total mandays required
					FOI	GOI/ FDSI	AMI	AVI	PLO	DGI	CSI	
A	CERTIFICATION (a)											
1	ATO Certification - Pilot	19.1	2	38.125	1	0	0	0	1	0.3	0	87.6875
	ATO Certification - Cabin Crew	19.1	1	19.0625	0	0	0	0	0	0.3	1	24.78125
	ATO Certification - AME	19.1	1	19.0625	0	0	1	1	1	0	0	57.1875
2	AOC Certification	34.9	3	104.8125	2	3	2	2	0	0.25	2	1179.140625
3	AMO Certification	21.2	1	21.1875	0	0	1	1	0	0	0	42.375
4	FAMO recognition	7.8	2	15.5	0	0	1	1	0	0	0	31
5	FATO recognition	7.3	2	14.5	1	0	0	0	1	0	0	29
6	Aircraft Original Certification	7.0	28	194.6	1	1	0.5	0.5	0	0	0	583.8
7	FAOC recognition	3.0	10	30	0	2	1	1	0	0	0	120
8	Flight Simulator Certification	4.0	40	160	1	1	0	0	1	0	0	480
9	Personnel Licensing - Pilot	2.9	450	1321.875	1	0	0	0	0.75	0	0	2313.28125
10	Personnel Licensing - Dispatcher	2.4	40	97.5	1	1	0	0	0.5	0	0	243.75
11	Personnel Licensing - AMT	2.2	250	546.875	0	0	1	1	0.5	0	0	1367.1875
	Total Mandays (Certification) (5)				2036.23	826.54	939.55	939.55	1545.28	43.36	228.69	6559.19

- FOI: Flight Operation Inspector
- GOI: Ground Operation Inspector
- FDSI: Flight Dispatch Safety Inspector,
- AMI: Aircraft Maintenance Inspector
- AVI: Avionics Inspector
- PLO: Personnel Licensing Officer
- DGI: Dangerous Good Inspector
- CSI: Cabin Safety Inspector

Conclusions

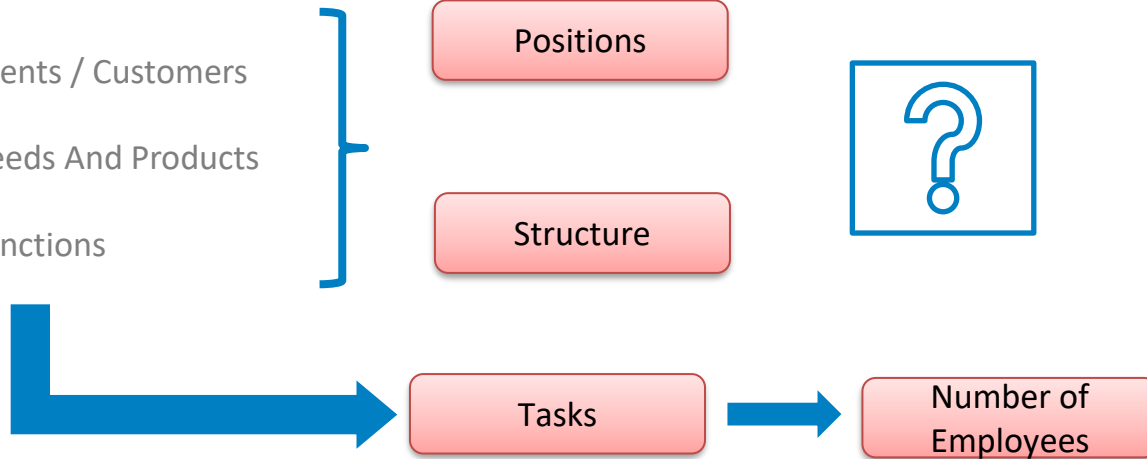


Conclusions

→ Organisation.

Identification of:

- ☐ Clients / Customers
- ☐ Needs And Products
- ☐ Functions



Conclusions

→ The staff.



Initial Applications

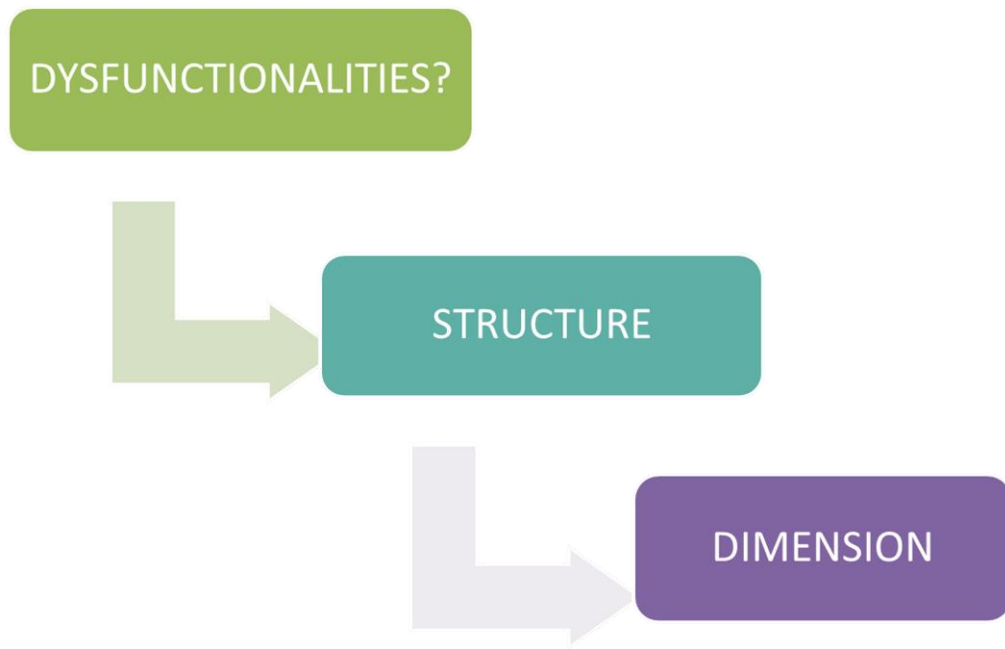
Team

Each organisation: team of ≈ 3 inspectors

Time required

2 weeks: documentary inspection
6 days: on-site inspection
2 weeks: reports and issuance of approvals

Conclusions



Conclusions

CAA Strategic Objectives to Optimize Staffing

- Identification of all clients & customers, functions and tasks for each division.
(Assignment of focal points)
- Decrease the administrative work of technical staff (streamlining of lower level correspondence to the assigned inspector's level)
- Improve communication within the department and between departments
- Implement the indirect approval for manuals, AMP

Conclusions

Doubts ?



End of Module 1

Establishing Number of Inspectors

Thank you very much for your attention!

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INTEGRATED TRAINING ROADMAP FOR INSPECTORS WORKSHOP

MODULE 2. Assess the Roles and Scope of Inspector Type

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Synchronous Distance Learning – Virtual Classroom, June 22nd – 25th, 2020

EU-South East Asia Aviation Partnership Project (EU-SEA APP)

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Civil Aviation Safety Inspector (CASI)

- A CASI (Civil Aviation Safety Inspector) is a qualified person authorized by the State to carry out safety oversight activities for civil aviation.
- CASIs' duties will necessarily evolve in order to adapt to the changing regulatory environment and the specific needs of their oversight organization.
- CASIs' duties and tasks will define the CAA Training Program



It is not possible to identify a standardized list of tasks for each CASI role as these are specific to the structure and the context of the oversight organisation

Role Assessment

- Each Department / Division must identify the jobs, tasks or functional areas in which it is necessary to establish technical qualification requirements.
- The positions / tasks / areas should be included in a CAA document of Profiles and Assignments, linked to each Qualification Profile.
- It will be the responsibility of each Department / Division, competent in each matter, to verify the qualification status of the personnel that carry out the corresponding tasks or activities.
- When the qualification profiles do not have a direct relationship with the tasks / actions to be performed, the traceability between the tasks / actions and the required profiles must be incorporated in the corresponding specific procedure, so that it is clear which profiles are necessary to do what tasks.

Definition of Qualification Profiles

- It is the responsibility of each Department / Division to define the necessary Qualification Profiles for the activities it carries out, preparing and keeping the so-called “Qualification Profile Requirements”.
- In general, the Qualification Profile is made up of different elements, as considered, to obtain the initial qualification or to maintain the qualification:
 - INITIAL QUALIFICATION
 - Academic Training.
 - Previous experience.
 - Initial Theoretical-Practical Training.
 - On The Job Training.
 - Assessment of skills and abilities.
 - MAINTENANCE OF THE QUALIFICATION
 - Continuous Theoretical-Practical Training.
 - Continuous Practical Experience.
 - Supervised Practice Re-qualification Experience.
 - Periodic competence assessment.

INSPECTOR ROLES & DUTIES

ICAO Doc. 10070



Areas of Activity of CASIs

- What are CASISs?
 - A CASI is a qualified person authorized by the State to carry out safety oversight activities.
 - Technical specialists, traditionally recruited from those sectors of the aviation industry that they will eventually oversee.
 - Technical specialists recruited through an open competition exam.
 - Technical specialists with the appropriate technical qualifications and competencies.

Areas of Activity of CASIs

- What are the areas of activity of CASIs?
 - Air operators and general aviation operations;
 - Aerodromes and heliports;
 - Licensed personnel and other aviation personnel (e.g. cabin crew, dispatchers ATSEPs);
 - Manufacture and maintenance of aeronautical products;
 - Continuing airworthiness of aircraft;
 - Approved organizations and their approved services/programmes;
 - Provision of air navigation services;
 - Dangerous goods.

Areas of Activity of CASIs

- CAAs need CASIs who possess the appropriate technical qualifications and competencies to manage oversight activities associated with the State's air transportation system to a level dependent on its complexity.
- Inspectors are assigned tasks according to their areas of technical expertise, experience levels and inspector qualifications.
- CASIs' principal operational duties will normally be focused on inspection, certification and on-going surveillance.



CASIs' Roles & Duties

- Generally, an inspection team consists of trained personnel, including CASIs authorized to assess the conformity and compliance of the organization or individual being inspected.
- Inspectors leading inspection teams are qualified i.a.w. CAA inspectorate qualification system.
- For **example**, the team conducting the certification of an applicant for an air operator certificate would include, at least:
 - An airworthiness CASI.
 - A flight operations CASI.
 - Other inspection team members for assistance, and will report to the CASI leading the team.
- In any case, the CAA will appoint an inspection team led by a CASI to conduct the work on its behalf.



CASIs' Roles & Duties

- **Aerodrome and Heliport CASI** typical duties:
 - Verification of the aerodrome data in the aerodrome manual and aeronautical information publications.
 - On-site verification and audits of aerodrome operating procedures.
 - On-site checking and testing of aerodrome facilities and equipment.
 - Flying assessments and aeronautical studies at aerodromes in coordination with other inspectors.
 - Aerodrome development oversight.

CASIs' Roles & Duties

- **Aerodrome and Heliport CASI** typical duties: (Cont.)
 - Assessment of aerodrome emergency plans and associated testing.
 - On site checking and testing of rescue and fire fighting services.
 - Certification of aerodromes and heliports.
- Qualifying experience should include a broad exposure to aerodrome ground operations.



CASIs' Roles & Duties

- **Airworthiness CASI** typical duties:
 - Initial airworthiness, including the design and certification of aviation products.
 - Continuing airworthiness CASI, including oversight of manufacturers; and
 - Airworthiness inspector in charge of aircraft and aviation products design and certification.



CASIs' Roles & Duties

→ Continuing Airworthiness CASI typical duties:

- Oversight of commercial air transport operators' maintenance control, including inspections/audits.
- Oversight of general aviation operators' maintenance control.
- Approval of MEL and specific approvals for special operations authorizations (e.g. extended diversion time operations (EDTO), low visibility operations (e.g. CAT II/III) - in coordination with flight operations inspectors).
- Aircraft maintenance programme approval and surveillance.
- Issuance and renewal of certificates of airworthiness.
- Support for aircraft export/import and registration.
- Approval of modifications and repairs, either based on a supplemental type certificate or involving minor repairs.



CASIs' Roles & Duties

- **Continuing Airworthiness CASI** typical duties: (Cont.)
 - Approval and surveillance of maintenance organizations;
 - Approval and surveillance of manufacturing organizations;
 - Approval and surveillance of maintenance training organizations;
 - Assessment of training programmes; and
 - Assessment of applicants for an aircraft maintenance (technician/engineer/mechanic) license or rating.
- The airworthiness CASI applicant may hold an aircraft maintenance technician license or a similar qualification in an approved maintenance organization.
- Knowledge of quality and safety management systems is desirable
- Relevant experience in the provision of maintenance training and checking is also desirable.

CASIs' Roles & Duties

→ Flight Operations CASI typical duties:

- Oversight of commercial air transport operators' flight operations, including in-flight inspections;
- Inspection of general aviation operations;
- Approval of MEL and specific approvals for special operations authorizations (e.g. EDTO, CAT II/III - in coordination with airworthiness CASIs);
- Approval and inspection of training organizations;
- Approval and inspection of flight crew training programmes;
- Qualification and approval of flight simulation training devices; and
- Assessment of applicants for a flight crew license or rating.

CASIs' Roles & Duties

→ Flight Operations CASI typical duties: (Cont.)

→ The flight operations inspector applicant should:

- Hold or have held a pilot license/rating at least equal to the license/rating for which assessments are conducted, and
- Have relevant experience in the aircraft operations subject to oversight.
- Knowledge of safety management systems is desirable.
- Relevant experience in the provision of flight training and checking is also desirable.

CASIs' Roles & Duties

→ Flight Dispatch CASI typical duties:

- Inspection of the air operators' operational control, flight preparation, support and following, as well as post flight support, in coordination with flight operations CASIs.
- Acceptance and inspection of flight operations officer/flight dispatcher training programmes.
- Assessment of applicants for a flight operations officer/flight dispatcher license or qualification.

→ The flight dispatch inspector applicant should:

- Hold or have held a flight operations officer/flight dispatcher license (or equivalent qualification), and
- Have relevant flight dispatch experience in international commercial air transport operations.
- Experience in the provision of flight operations officer/flight dispatcher training and checking is desirable.



CASIs' Roles & Duties

- **Air Navigation Services CASI** typical duties:
 - Oversight of air traffic services providers, including acceptance of their SMS.
 - Oversight of meteorological services providers within the State, and of the provision of meteorological services by providers from other States.
 - Oversight of aeronautical information service providers and their management of information.
 - Inspection of the communication, navigation and surveillance (CNS) infrastructure and its effectiveness.

CASIs' Roles & Duties

- **Air Navigation Services CASI** typical duties: **(cont.)**
 - Approval of airspace structure changes and flight procedures conceived by a design organization.
 - Oversight of search and rescue coordination.
 - Approval of air traffic control training organizations and programmes;
 - Approval of other air traffic services training programmes.
 - Qualification and approval of air traffic control simulation training devices.
 - Assessment of applicants for an air traffic controller license or rating.

CASIs' Roles & Duties

- **Air Navigation Services CASI typical duties: (Cont.)**
- The air navigation services inspector applicant should:
 - Hold or have held an air traffic controller license (or equivalent qualification)
 - Have relevant experience in the duties assigned by the CAA.
 - Knowledge of safety management systems is desirable
 - Relevant experience in the provision of air traffic services training and checking is desirable.



CASIs' Roles & Duties

→ Cabin Safety CASI typical duties:

- Review and approval of the air operators' cabin emergency equipment and procedures. *(In coordination with flight operations CASIs)*
- Approval and inspection of cabin crew members' safety training programmes, including procedures, facilities and equipment.
- Conduct of en-route inspections for cabin safety.

→ The cabin safety inspector applicant should:

- Have relevant cabin crew experience in international commercial air transport operations.
- Have experience in the provision of cabin crew safety training.
- Have knowledge of safety management systems as related to cabin safety is desirable.



CASIs' Roles & Duties

- **Dangerous Goods CASI** typical duties:
 - Specific approval for the transport of dangerous goods by commercial air transport operators. (*Including the dangerous goods procedures and training programmes*)
 - Approval of the dangerous goods procedures and training programmes of commercial air transport operators that are not approved to transport dangerous goods.
 - Inspection of the conformity of operations with regard to dangerous goods
 - Investigation of dangerous goods incidents and accidents.
- The dangerous goods inspector applicant should:
 - Have relevant experience in commercial air transport operations involving dangerous goods.
 - Experience in the provision of dangerous goods training is desirable.



CAA TYPICAL CASI ROLES



CAA CASI Roles. Example

AIRCRAFT SAFETY DEPARTMENT (ASD)		
ASD-UAS		
FUNCTIONAL AREA	QUALIFICATION PROFILE	CODE (Training and Qualification Management)
UNMANNED AIRCRAFT SYSTEMS (UAS)	UAS Team Leader	P00133
	UAS Team member	P00231
ASD -Coordination of Air Operations and Airworthiness		
FUNCTIONAL AREA	QUALIFICATION PROFILE	CODE (Training and Qualification Management)
MAINTENANCE ORGANISATIONS	Maintenance organisation inspection	P00188
AIRCRAFT MAINTENANCE TRAINING AND LICENSING	Maintenance training inspection	P00189
	AML Examination	P00190
CONTINUING AIRWORTHINESS MANAGEMENT	Continued Airworthiness Inspection	P00191
SAFA/SANA RAMP INSPECTION	Continuing airworthiness inspection	P00191
MAINTENANCE ORGANISATIONS	SAFA/SANA Ramp inspection	P00192
	Ramp inspection Team Leader	P00288
	Ramp inspection Expert / Team Member	P00233
BUSINESS SUPERVISION OF AIRLINES	Business permits	P00106
	Air Transport Financial Economic Supervision	P00108
	Aeronautical Organizations and Operating Licenses	P00289
	Aircraft Leasing	P00235

Source: AESA. Requirements for qualification profiles.

CAA CASI Roles. Example

ASD -Coordination of Air Operations and Airworthiness		
FUNCTIONAL AREA	QUALIFICATION PROFILE	CODE (Training and Qualification Management)
AIR OPERATORS (CAT, AW & GA)	Minimum Equipment List (MEL)	P00195
	Air Operator inspection (OPS Inspector)	P00196
	Air Operator inspection (FOI-A)	P00198
	Air Operator inspection (FOI-H)	P00200
	Air Operator inspection (Expert)	P00202
CERTIFICATION OF AIRCRAFT, PRODUCTS AND PARTS	Responsible for EASA Certification	P00214
	Responsible for Non EASA Certification	P00215
	EASA Certification Specialist	P00216
	Non EASA Certification Specialist	P00217
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219
	EASA CofA & Permit to Fly	P00220
PRODUCTION ORGANISATIONS (POAs)	POA Team Leader / Suparte F	P00221
	POA Team Member / Subpart F	P00222
	POA Coordinator	P00223
DESIGN ORGANISATIONS (DOAs)	DOA Team Coordinator	P00042
	DOA Team Member	P00043
AIRCRAFT REGISTER	AR Technical Supervision	P00131
	AR Administrative Support	P00132

Source: AESA. Requirements for qualification profiles.

CAA CASI Roles. Example

AIR NAVIGATION DEPARTMENT (AND)			
AIR NAVIGATION DIVISION			
FUNCTIONAL AREA	QUALIFICATION PROFILE		CODE (Training and Qualification Management)
AIR NAVIGATION INSPECTIONS	AIR NAVIGATION SUPERVISION CHANGES OF AIR NAVIGATION	Air Navigation Supervision	P00092
		Team leader	P00226
	SUPERVISION OF AIR NAVIGATION SYSTEMS	Team Member	P00095
	ATS / ATFM SUPERVISION	Team Member	P00085
	SUPERVISION OF ATS TRAINING PROVIDERS	Team Member	P00086
	AIR SPACE	Team Member	P00087
	AIS SUPERVISION	Team Member	P00088
	ECONOMIC SUPERVISION AIR NAVIGATION AND PERFORMANCES	Team Member	P00094
	AIR NAVIGATION SUPERVISION	Team Member	P00089
PROCESSING	ATC LICENSES	ATC Licensing Technician	P00091
ADVANCED	ATS / ATFM SUPERVISION	Advanced ATS Operational	P00098
	SUPERVISION OF AIR NAVIGATION SYSTEMS AIR SPACE	Advanced CNS Facilities	P00227
		Advanced ATM Systems	P00099
	ECONOMIC SUPERVISION AIR NAVIGATION AND PERFORMANCES	Advanced Maneuvers	P00101
	ATS / ATFM SUPERVISION	Advanced ECONOMIC SUPERVISION AIR NAVIGATION AND PERFORMANCE	P00273

Source: AESA. Requirements for qualification profiles.

Conclusion

Doubts ?



End of Module 2

ASSESS THE ROLES AND SCOPE OF INSPECTOR TYPE

Thank you very much for your attention

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INTEGRATED TRAINING ROADMAP FOR INSPECTORS WORKSHOP

MODULE 3. Resource Planning

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Synchronous Distance Learning – Virtual Classroom, June 22nd – 25th, 2020

EU-South East Asia Aviation Partnership Project (EU-SEA APP)

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the European Union Aviation Safety Agency - EASA*

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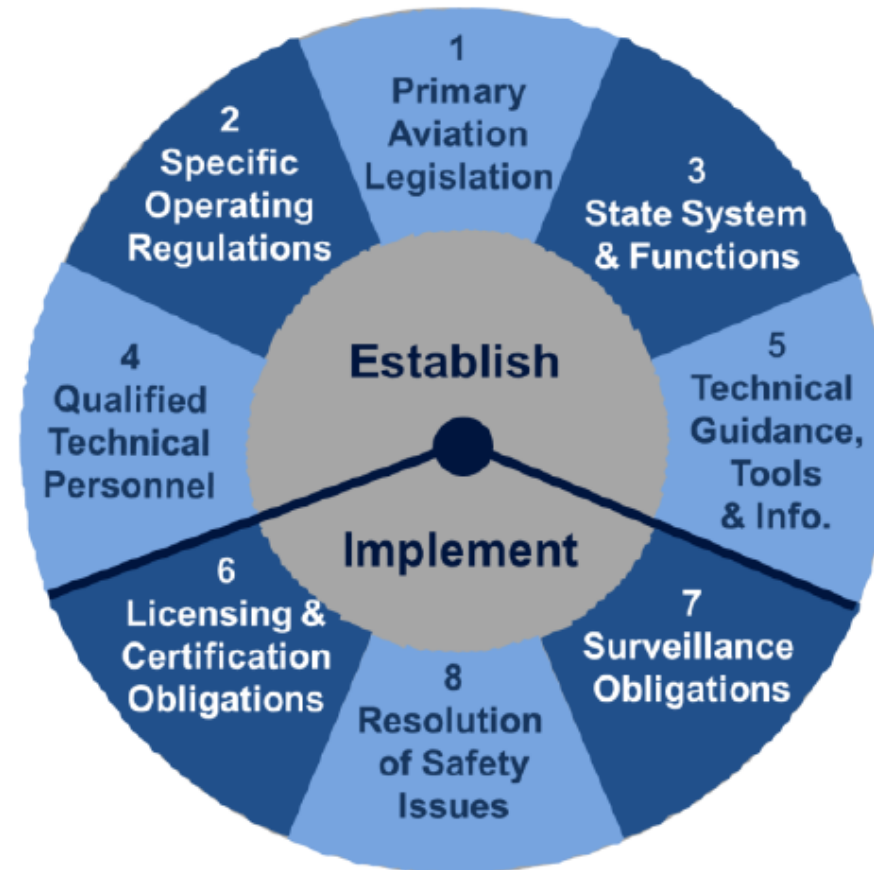


CAA HUMAN RESOURCES



State Obligations

- There are two types of States' obligations with regard to oversight:
 - Those that relate to supporting international civil aviation, and
 - Those that relate to supporting CASIs to effectively perform safety oversight functions on behalf of the CAA.
- To accomplish these obligations, **critical elements 4 and 5 are particularly related to the qualification of CASIs** and the implementation of critical elements 6, 7 and 8.
- **CAA resource planning will be done to satisfy State's obligations.**



The eight critical elements of a State safety oversight system

CAA Human Resources

- States need guidance on resourcing and structuring of a CAA.
 - How many Departments to fulfil its obligations.
 - Staff per Department/Division.
 - Staff qualification i.a.w. national & international standards.

- An unequivocal fact:

USOAP audits found that States don't have methodology to determine staffing needs.

- CAA human resource tool:
 - Benchmarking.
 - Manpower planning.
 - Organizational structure.



CAA Human Resources

Tool



Benchmarking

For States to get a sense of the number of inspectors, based on benchmark with peers

Tool



Manpower Planning

Tool that States can use to calculate manpower needs

Information

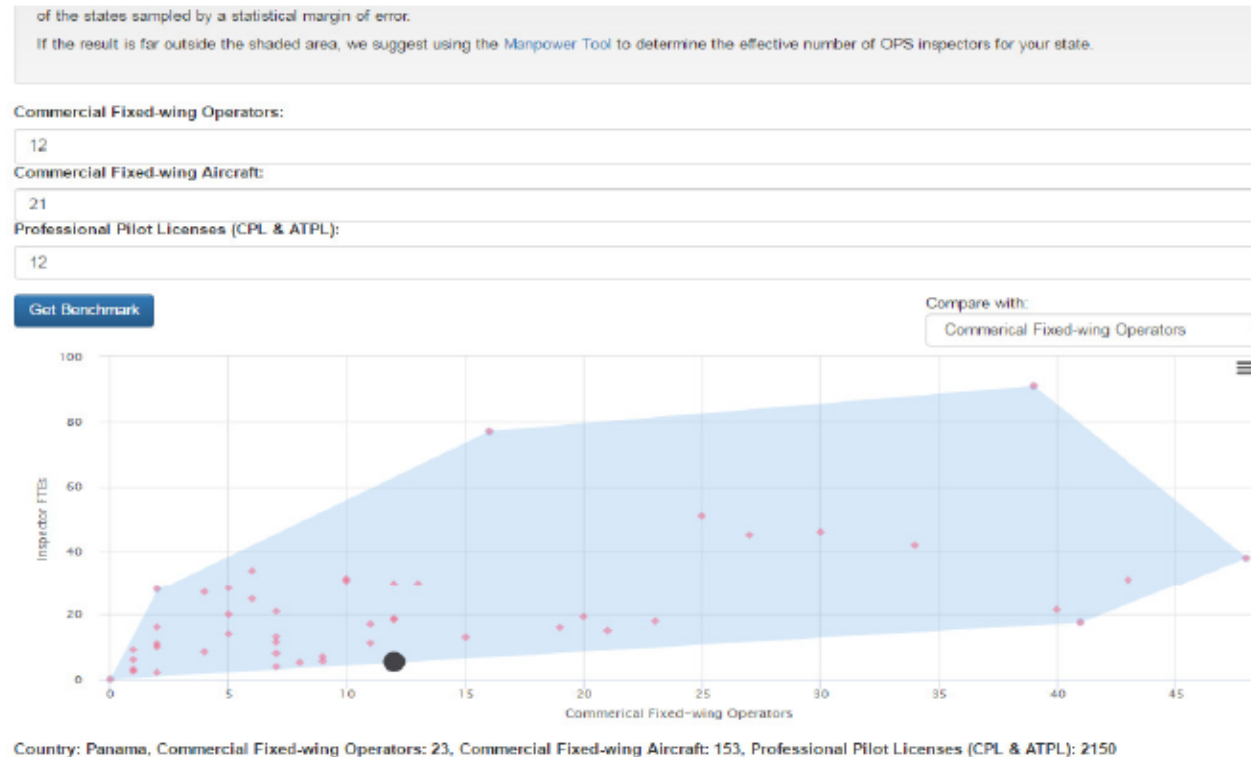


Organizational Structure Guidance

Different approaches to safety and sharing of best practices

CAA Human Resources

- Benchmarking tool:
 - Provides a starting point with raw data
 - Allows States to compare their number of inspectors with the number of inspectors of other States.



CAA Human Resources

→ Manpower Planning Tool:

- Calculates man-hours and number of inspectors (OPS, AIR, PEL, AGA, ANS) needed
- Includes a basic risk-based approach to surveillance.



CAA Human Resources

→ Organisational structure:

- The way to organize the civil aviation authority proportionally to the size and scope of the aviation industry.
- It is helpful to select similar CAAs and their structures to help States with:
 - Identifying factors to consider when designing a CAA and safety oversight system.
 - Evaluating options for the management of resource load: internal resourcing, designation, delegation, outsourcing, etc.

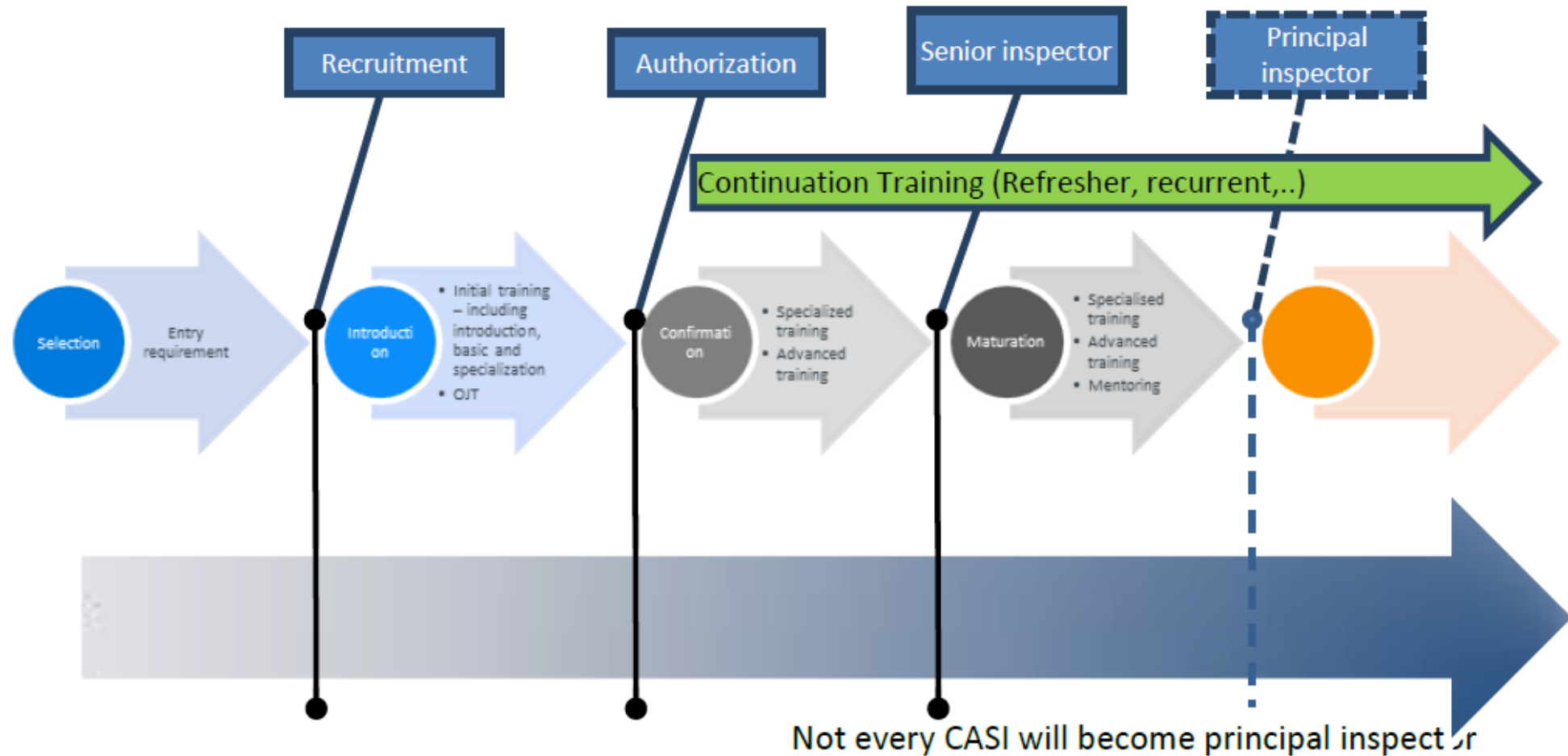


Civil Aviation Safety Inspector (CASI)

- A CASI (Civil Aviation Safety Inspector) is a qualified person authorized by the State to carry out safety oversight activities for civil aviation.
- As CASIs progress in their career, they develop and achieve a wider spectrum of the competencies identified in their CAA's adapted competency model.
- It is possible to identify three phases in a CASI's career, on the understanding that not all CASIs achieve or wish to carry out duties and tasks as a principal inspector, which would be a phase more.
- The four phases are:
 - Recruitment,
 - Authorization,
 - Senior inspector, and
 - Principal inspector.

Civil Aviation Safety Inspector (CASI)

Career progression of a successful CASI with associated training



Source: ICAO Doc. 10070

Inspection / Audit Team composition

- An audit team will vary according to the category, type and classification of the audit.
- Specialty audits will often consist of only one inspector where that inspector is responsible for all audit duties.
- Large combined audits will have different CASIs and will assume different duties and responsibilities depending on the phase where they are:
 - An audit team leader,
 - Team members,
 - Specialists, and
 - Observers as appropriate.
- It is therefore recognised that an audit team may not require all the positions listed and that various duties and responsibilities may be combined or deleted when assumed by a particular team member.

Inspection / Audit Team composition

→ The Team Leader:

- Will report directly to the Head of the Department until released from his/her audit duties;
- Will conduct all audit related matters in accordance with policy and procedures specified by CAA;
- Will immediately contact the Head of the Department with a recommendation for action in the event of an immediate threat to aviation safety;
- Is authorized to communicate directly with managers within the CAA to obtain the required personnel resources; and
- Will, where required, be assigned a responsibility centre number with the appropriate funding for travel, overtime and any related expenses to be incurred during an audit.



Inspection / Audit Team composition

→ The Team Members:

- Will report directly to the audit team leader, until released from his/her audit duties;
- Will conduct all audit related matters in accordance with policy and procedures specified in CAA procedures; and
- Will immediately contact the audit team leader, with a recommendation for action in the event of an immediate threat to aviation safety.



Fulfilment of State's Obligations

How to solve the lack of CASIs in small CAAs?

- Create a pool of highly-qualified and experienced inspectors capable of performing specific and specialized regulatory tasks.
 - Training will include the relevant ICAO approved Government Safety Inspector (GSI) courses.
 - Based on the competencies identified by the State.
- Provide access to inspectors that can carry out specific job task or function on a temporary basis.
- Enable the State to satisfactorily perform their regulatory oversight functions.



Fulfilment of State's Obligations

What is being done by ICAO?

- Secretariat is developing guidance material to facilitate a State's ability to delegate its functions and duties.
- Creating a database of highly-qualified and experienced inspectors that are capable of performing specific, specialized tasks.
- Creating an ICAO baseline for the CAA's inspectors competencies, including a "career path".



Fulfilment of State's Obligations

- Based on ICAO Universal Safety Oversight Audit Programme (USOAP) audit conclusions, having a **lack, or an insufficient number of qualified inspectors or aviation personnel holding highly-specialized technical expertise** to perform job functions and tasks, affects the sustainability of safety oversight systems.
- This lack has been identified as “CE-4” related and it remains one of the main obstacles to the implementation of an effective State safety oversight system.
- This deficiency has often been determined as being the root cause of situations leading to the identification of Significant Safety Concerns (SSC) in the State by ICAO.

Fulfilment of State's Obligations

- The difficulties in attracting and retaining suitably qualified inspectors who can respond to the challenges inducted by the increased size, scope, complexity and rapid change of the aviation industry, has become one of the major issues for the competent authorities of the Member States.
- The database behind the ICAO Civil Aviation Safety Inspectors Tool (CASI-T), and the tool itself, are based on the concept of collecting relevant data regarding subject matter experts within different civil aviation domains.

Fulfilment of State's Obligations

- This tool, which has been designed as a solution for Member States who need experts to complete essential tasks on a short-term basis, will be embedded into the ICAO website. The complexity of this concept and its value reside in the significant number of such experts needed, while the need is multiplied by the large range of aviation domains to be covered.



Fulfilment of State's Obligations

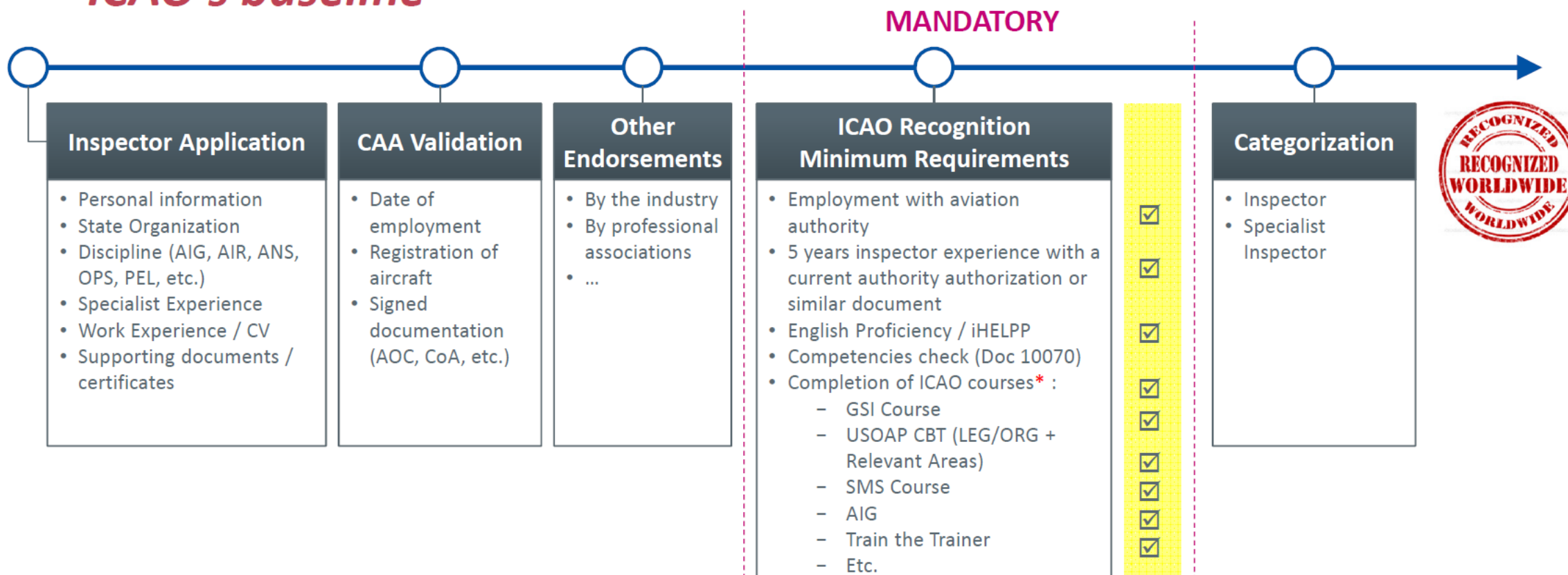
- ICAO is currently working on creating and populating the database; identifying the applicable criteria; and building the roster of suitable experts within the airworthiness/XBT area.
- When this is available, an expert within the database will match a request for a particular task, and a direct professional relationship between the envisaged expert(s) and interested Member State (CAA) will be established.



Civil Aviation Safety Inspector (CASI)

- From inside CAA (Baseline)
- From outside CAA (Database)

ICAO's baseline



CAA ORGANISATION SCOPE



ICAO Critical Elements Related to Personnel

- CE-4 Qualified technical personnel
 - The State shall establish minimum qualification requirements for the technical personnel performing safety oversight functions and provide for appropriate initial and recurrent training to maintain and enhance their competence at the desired level.
 - The State shall implement a system for the maintenance of training records.
- CE-5 Technical guidance, tools and provision of safety-critical information
 - The State shall provide appropriate facilities, comprehensive and up-to-date technical guidance material and procedures, safety-critical information, tools and equipment, and transportation means, as applicable, to the technical personnel to enable them to perform their safety oversight functions effectively and in accordance with established procedures in a standardized manner.”

CAA's Responsibilities.

→ What is the responsibility of the CAA's organization?

Organisation Handbook formally identifies:

- National legislation & oversight responsibilities allocated to CAA
- Technical regulatory framework: ICAO, Regional, National
- Structure: directorates, departments, units...
- Assignment of responsibilities
- Traceability to general procedures.

CAA's Responsibilities.

→ Who defines the legal and technical regulatory framework ?

Training activities must ensure compliance and alignment with:

→ National legislation & oversight responsibilities allocated to CAA.

→ Safety Regulations & Standardisation, Harmonisation:

→ ICAO.

→ Regional.

EASA (COMMON TRAINING INITIATIVE GROUP)

FAA, TRANSPORT CANADA, ANAC, etc.

ECAC (NETWORK OF TRAINING ORGANISATIONS)

→ National.

CAA's Responsibilities.

→ CAA is responsible for supervision in the fields of:

- Policy Aviation and Air Transport.
- General Transport Plans.
- International representation.
- Airworthiness.
- Continuous Airworthiness.
- Operation.
- Aeronautic personal Licensing.
- Safety evaluation.
- Aerodromes and ATM
- Air Operators Licensing and Economic surveillance.
- Air Transport User Protection.
- Security supervision (Aircrafts, Airports, ATS).
- Facilitation.

→ CAA has also competences in the scope of:

- Policy Aviation and Air Transport.
- General Transport Plans.
- International representation.

CAA's Responsibilities.

→ Typical CAA structure

- Structure: directorates, departments, units... Hierarchical relationships
- Appointment of responsibilities.



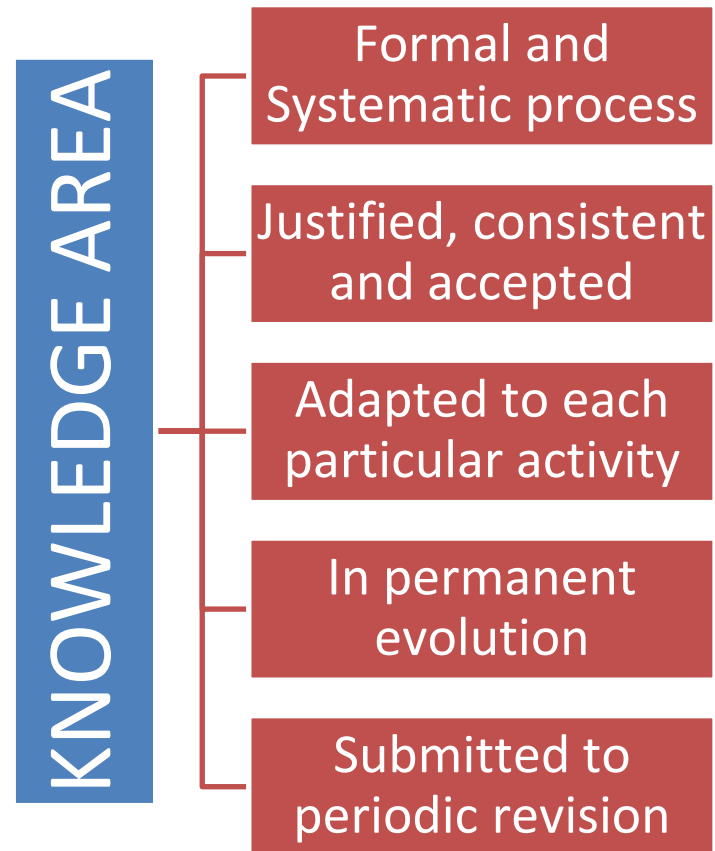
Training System. Knowledge Area.

→ Set of:

- Information.
- Data.
- Understanding.
- Culture.

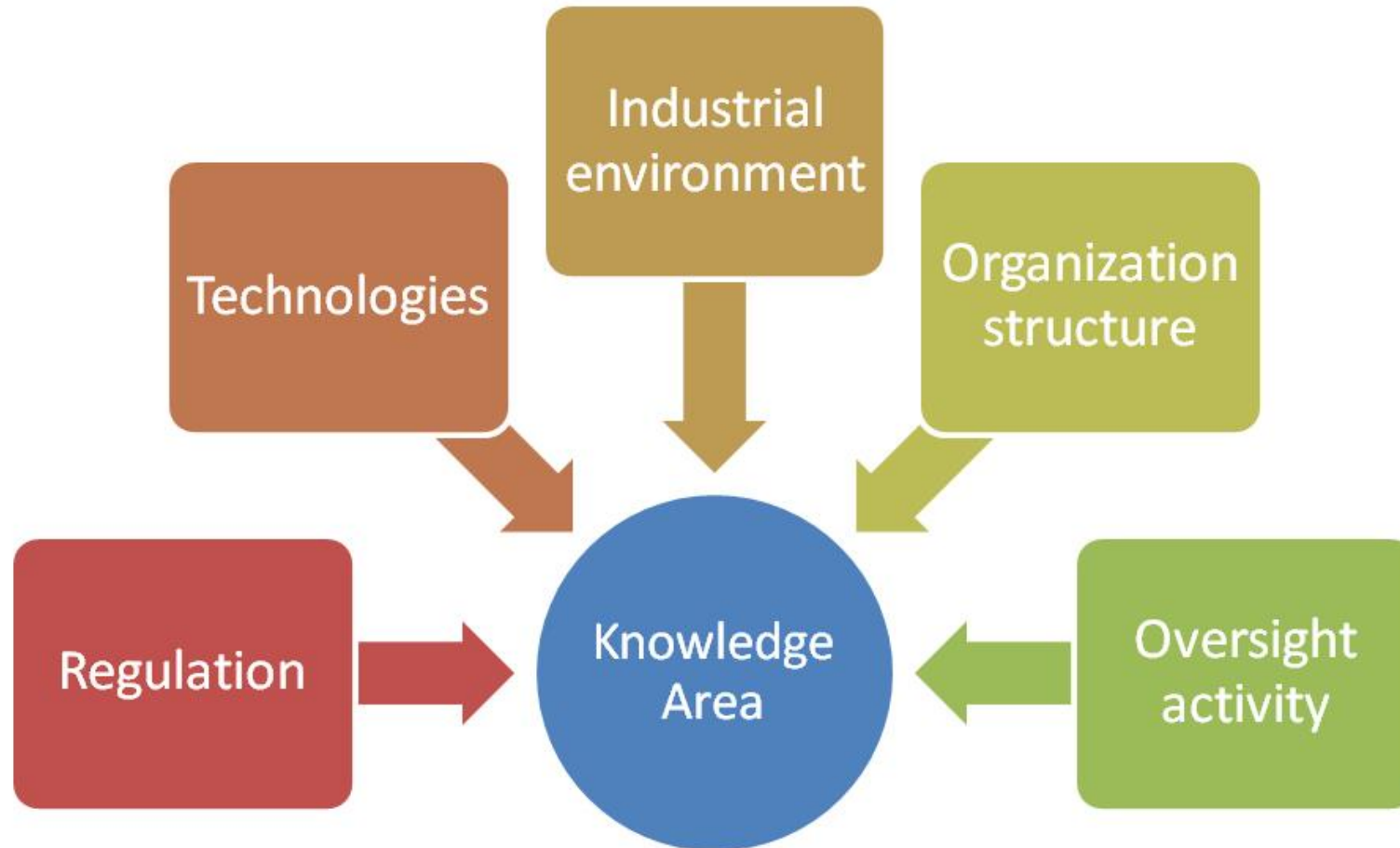
allowing the organization to approach subjects, under a theoretical and practical understanding.

Training System. Knowledge Area.



Training System

- What elements must be taken in consideration to establish each Knowledge area?

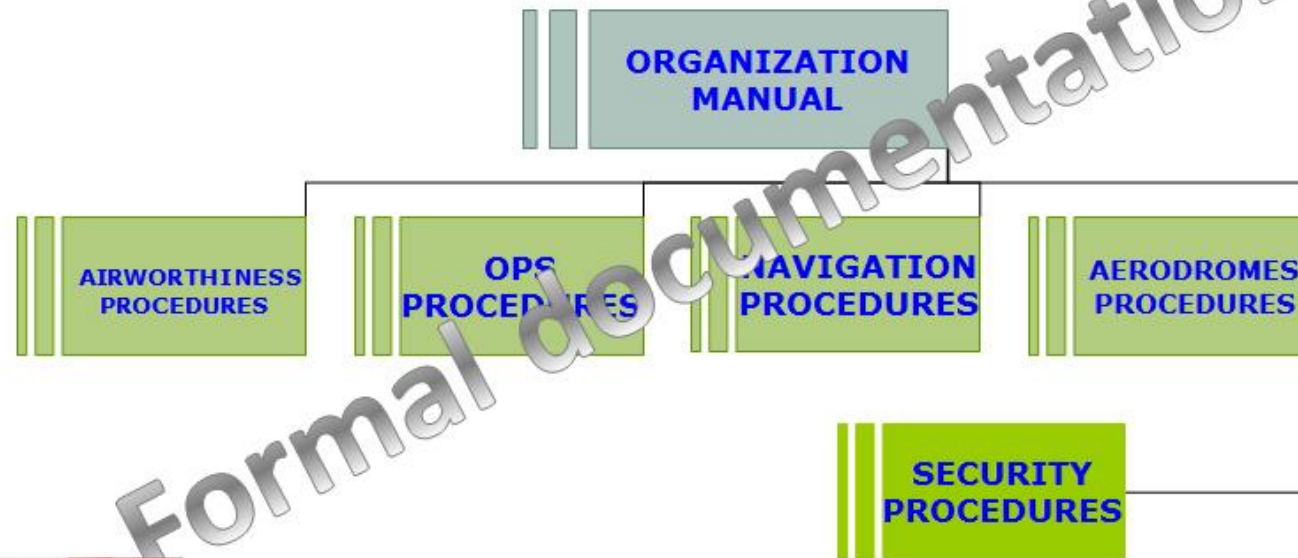


Training System - Knowledge Area

→ As this Knowledge is defined and formalized

Procedures breakdown.

Documentation management.



Training System - Knowledge Area

→ Documentation Management

The implementation of a Documentation Control System, should be a strategic decision from the CAA senior management.

Documentation Control System should be under Quality Department

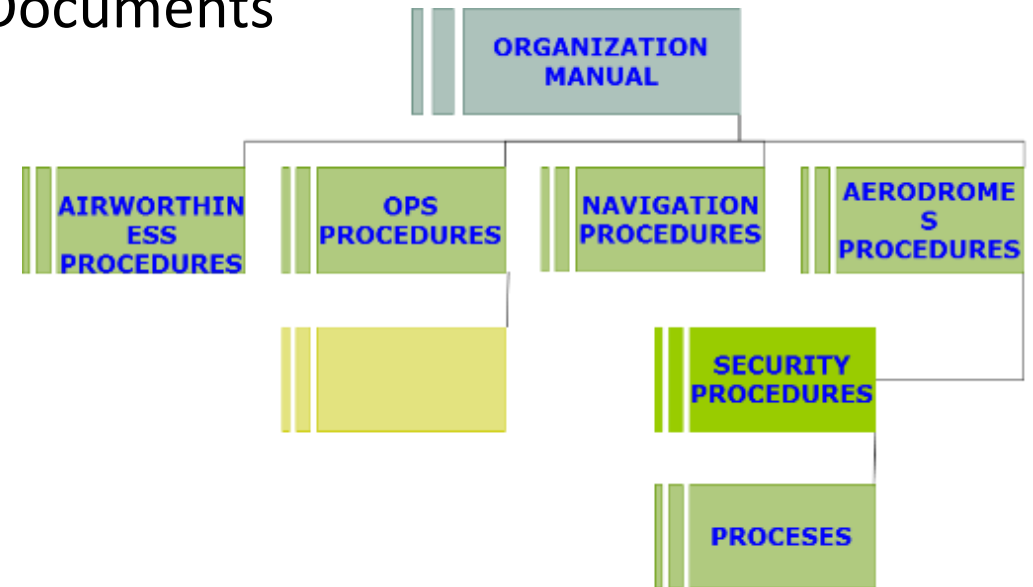


Training System - Knowledge Area

→ Base of Reference

Should be:

- Legal Framework
- Technical Framework
- Handbooks
- Procedures & processes
- Technical Documents
- Standards
- Reports



Training System - Knowledge Area

→ The main events in the life cycle of a document



Training System - Knowledge Area

→ Technical library - Objective

To provide information related with Know How on-line

Internal Formal Documentation

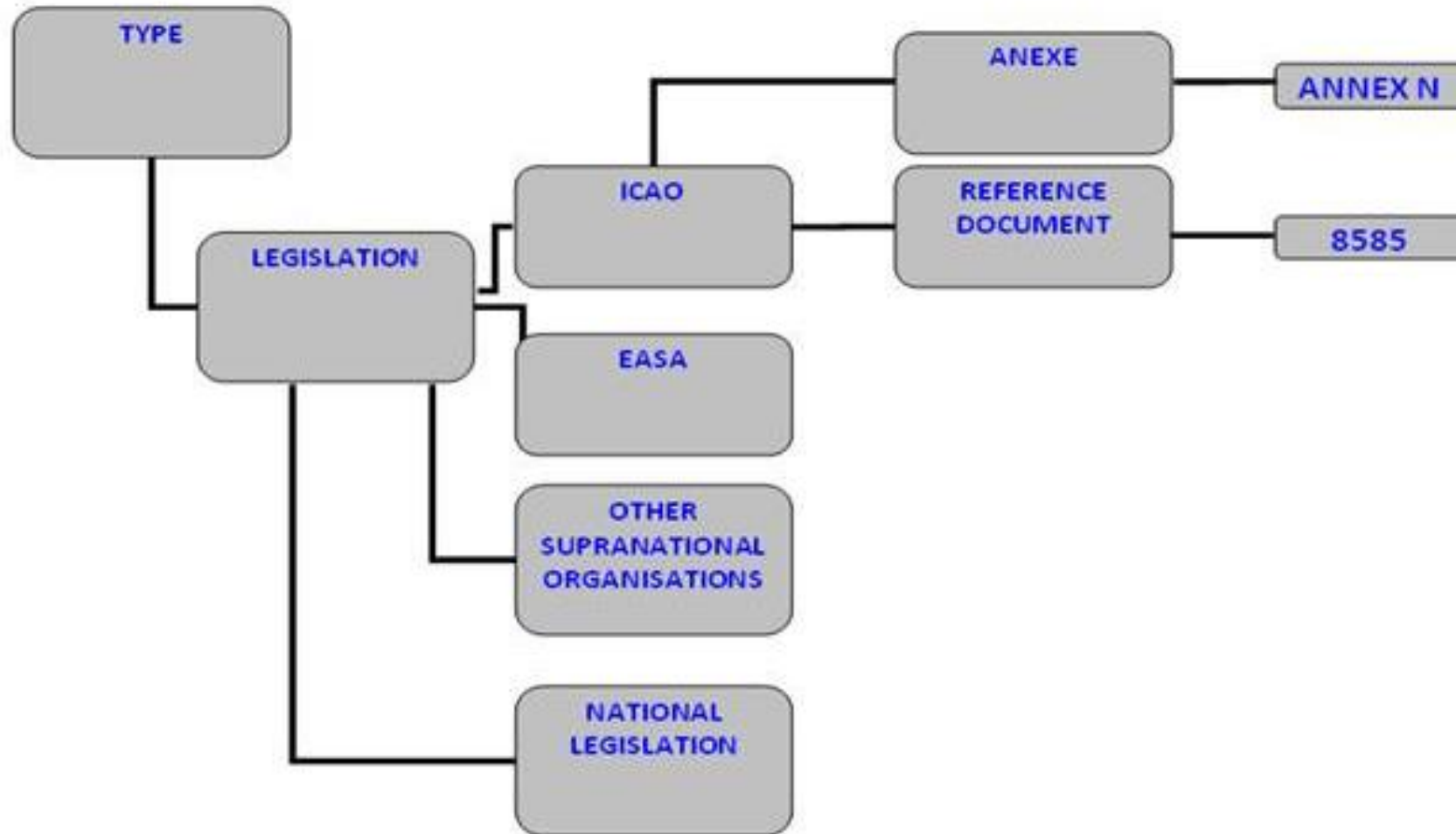
External documentation

- ICAO documents
- Legislation, Regulations
- Technical Development Documents, Guidance Materials
- Aircraft, Engines, Propeller And Equipment Technical Manuals
- Design Standards Referred In TSO / E-TSO
- Service Bulletins And Airworthiness Directives
- Any Other Document considered necessary



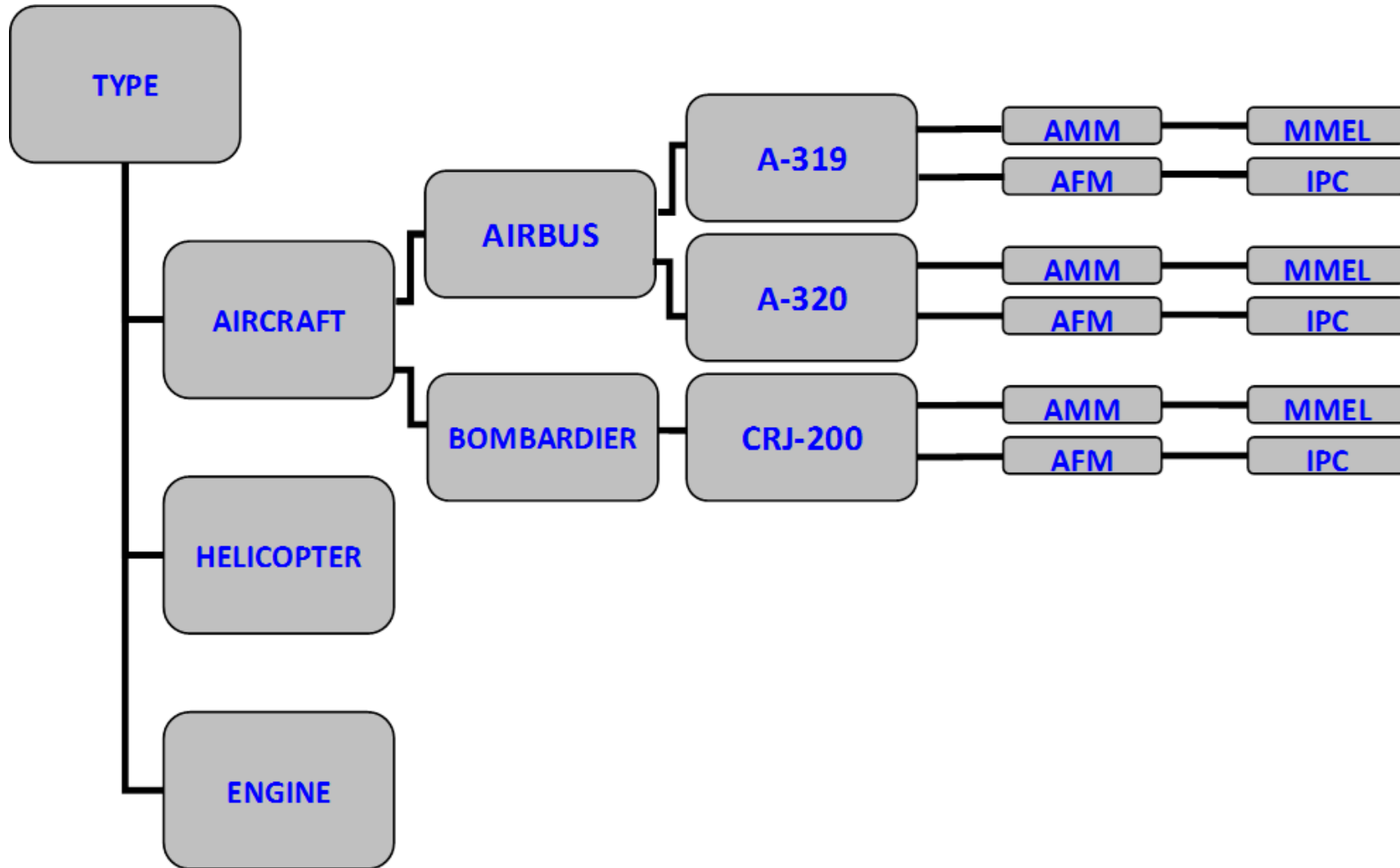
Training System - Knowledge Area

→ Technical library - Framework Structure



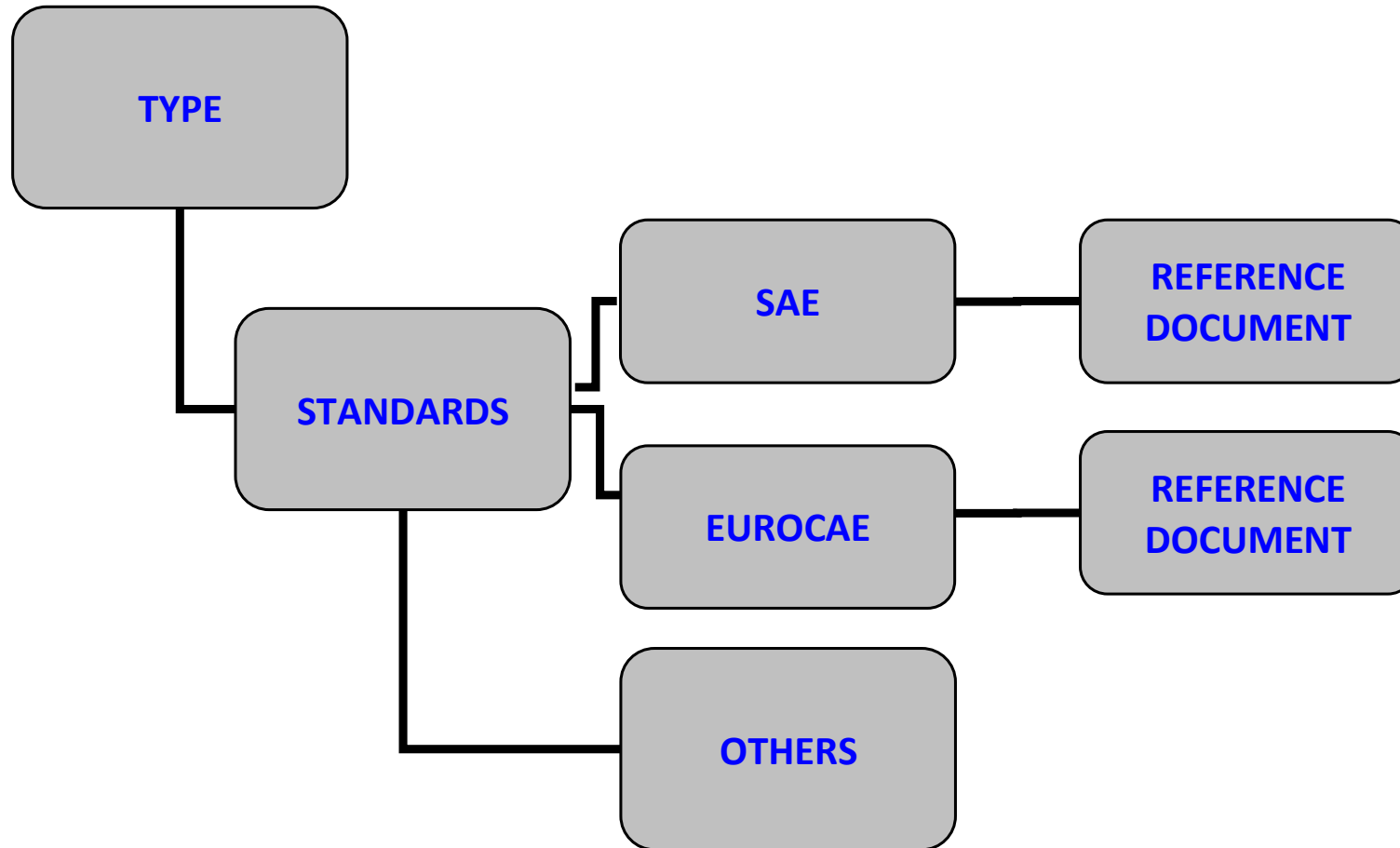
Training System - Knowledge Area

→ Technical library - Framework Structure



Training System - Knowledge Area

→ Technical library - Standards Structure



Training System.

→ What elements constitutes a Training System?

Should be:

→ Qualification Profiles

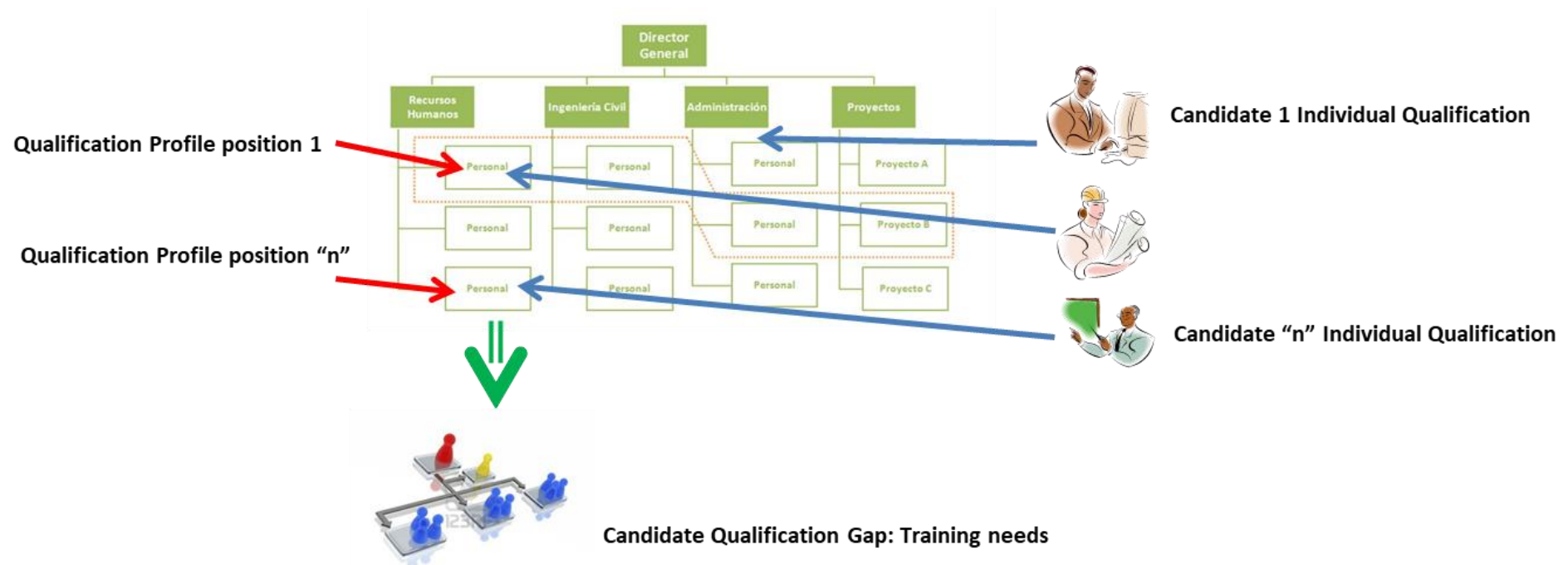
→ Training Standards

Training System for CAA.

→ What is meant by Knowledge Qualification Profile?

Set of fields of :

- Knowledge (academic education, specific knowledge, continuous training) and
- Experience (previous, supervised practical experience, continuous experience) associated with a task or job that are considered necessary to increase the efficiency and optimize the execution of the task.



Training System.

- What is meant by Training Standards?
- The set of knowledge to be transmitted fit to each position.
 - Principles of safety and security
 - Learned lessons in terms of safety
 - Latent problems/conditions
 - Human factor and its influence on various activities
- The configuration of all training activities.
- Categories of staff to be trained.
- Harmonization of training programmes.
- The objectives and characteristics of each specific training activity.
- The life cycle of knowledge and its revision .

Training System.

- What should be taken into consideration to define Training Standards?
- Organize all the knowledge required
- Transmit appropriately information and data
- Not to repeat the same subjects in different activities
- Not to leave areas of knowledge unattended
- Configuration and control of activities to be performed.



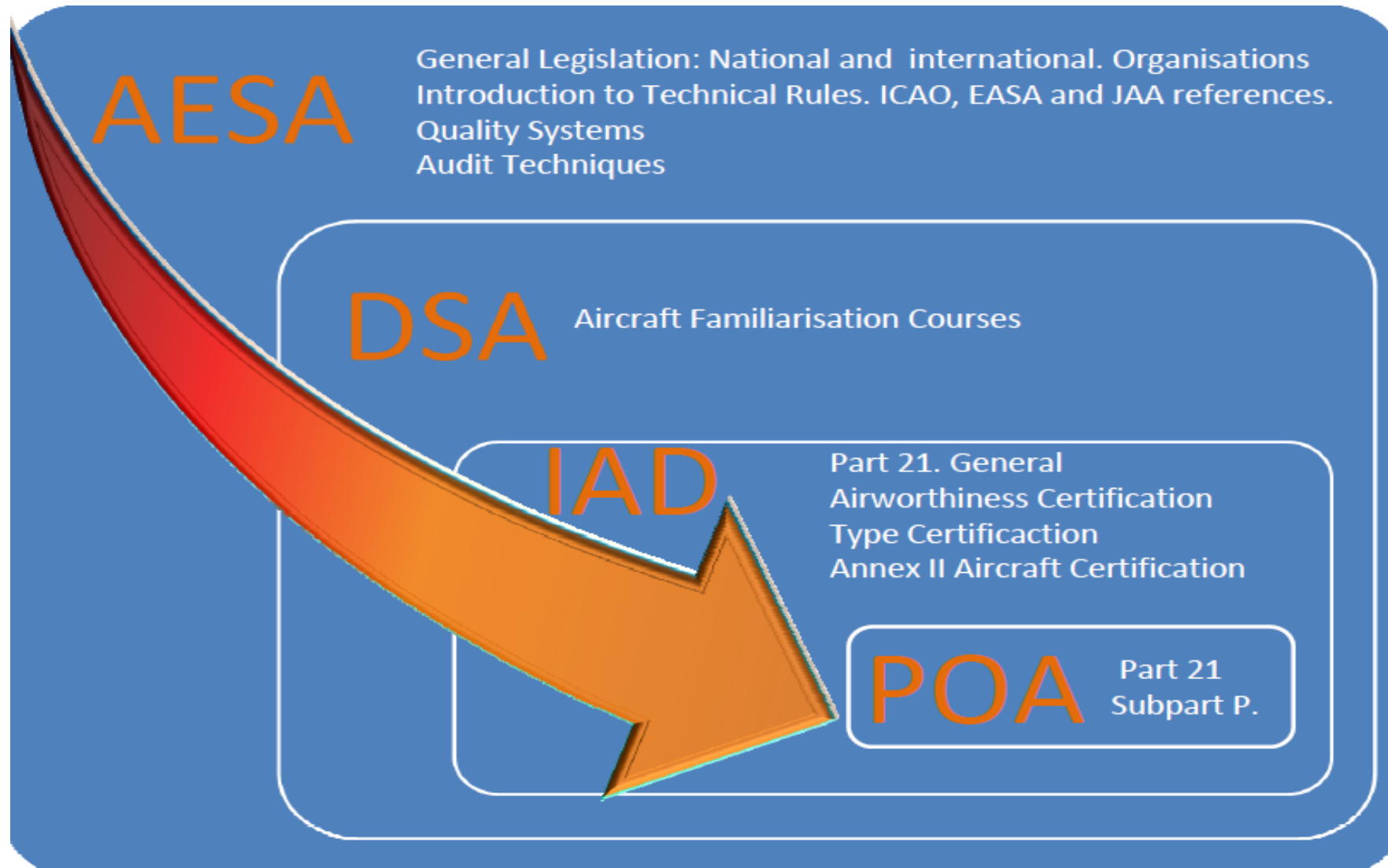
Training System.

What should be taken into consideration to define Training Standards?

- The knowledge required to perform the oversight to industry (operators, services providers)
- The information, data, interpretation, and policy to be transmitted by the training activities (theoretical or practical).
- The standards applicable to different training activities to be performed.

Training System.

→ What should be taken into consideration to define Training Standards?

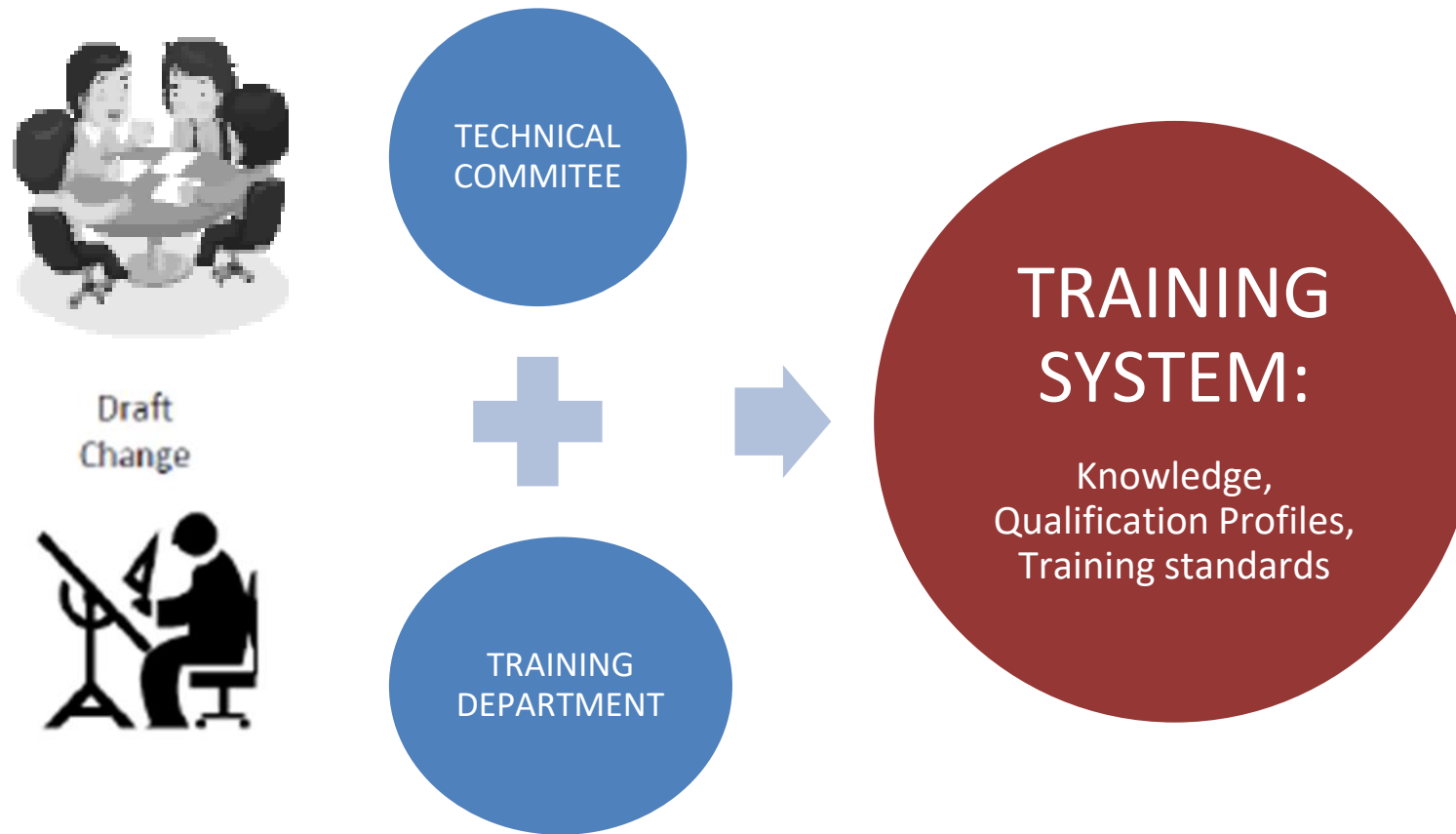


Training System.

- Standards update.
- Standards are not stable due to:
 - New Regulations or modification of existing regulations
 - Changes in technologies, operations, etc.
 - Changes in CAA's procedures, organization, tools, facilities, etc.
- Standards should be revised, at least once per year.
- Usual Training Standard life cycle is two years.

The tools - Technical Committee

→ Tools to develop Training System



The tools - Technical Committee

- **Technical Committee composition**
- Main responsibilities: to define and revise Qualification & Training Standards
- Designated staff from:
 - Initial Airworthiness
 - Continuous Airworthiness
 - Operations
 - Licensing
 - Aerodromes
 - Navigation
 - Security
 - Facilitation and passenger rights
 - Evaluation of Safety
 - Quality
 - Regional Offices Representatives
 - Training Department



The tools - Technical Committee

→ What is meant by Training Standards?

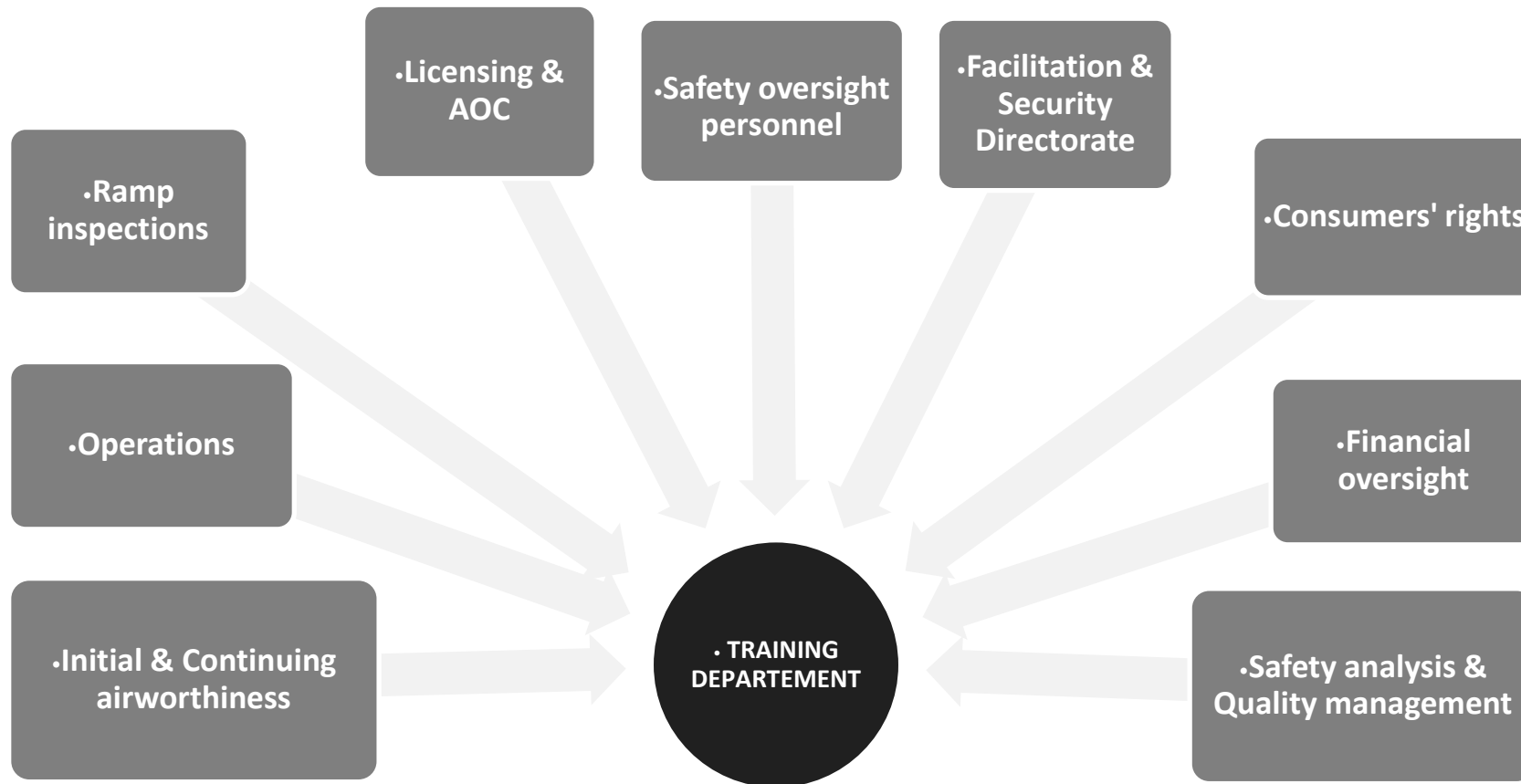
Which environmental matters must be considered to implement a Training System?



The tools - Technical Committee

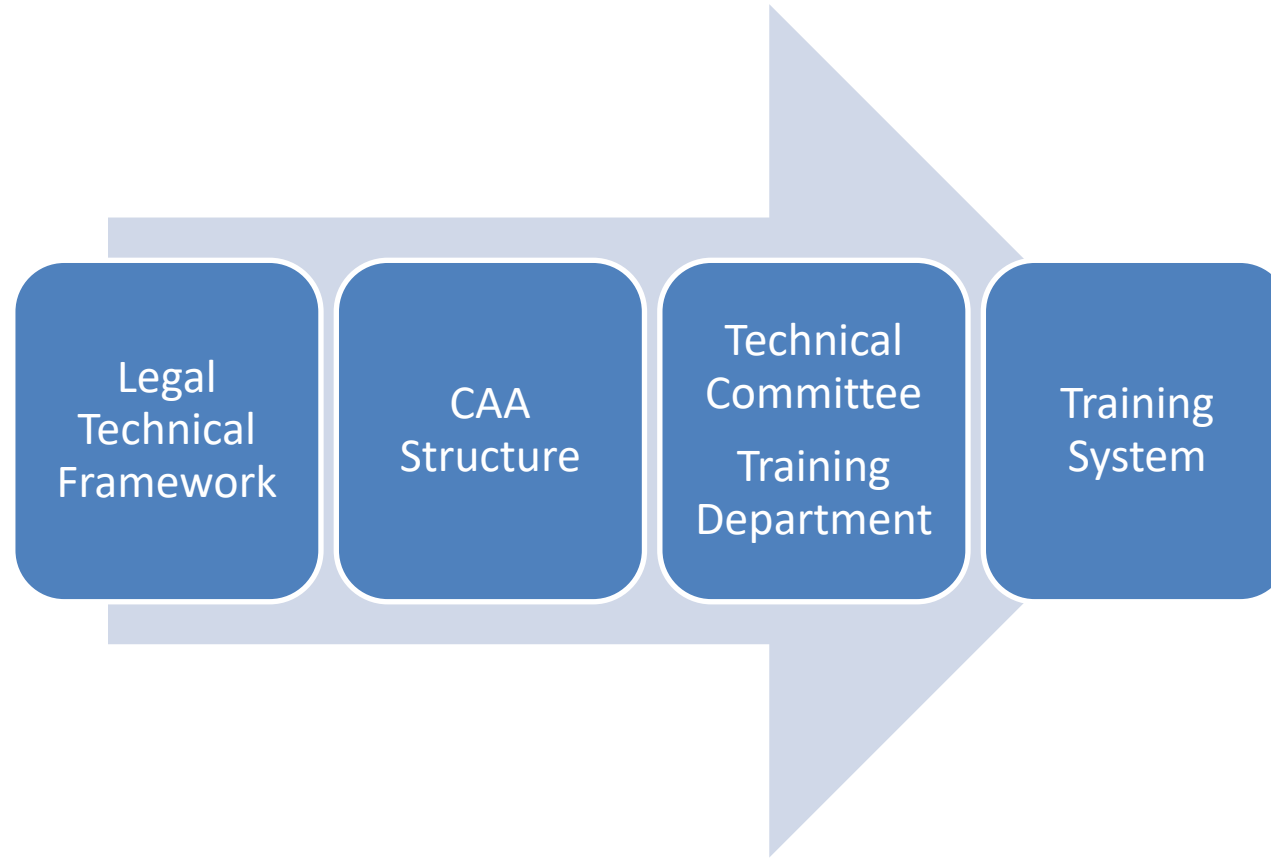
→ What is meant by Training Standards?

Example Technical Committee for Commercial Air Transport standards.



The tools - Technical Committee.

→ Steps to construct CAA's Training System



Conclusion

Doubts ?



End of Module 3 RESOURCE PLANNING

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Integrated Training Roadmap for Inspectors Workshop

MODULE 4. Training Needs Analysis

Giuseppe Sabatino

Synchronous Distance Learning – Virtual Classroom

June 22nd – 25th, 2020

Scope of Analysing Training Needs



SAFETY OVERSIGHT

- Safety oversight is a function performed by a State to ensure that individuals and organizations performing an aviation activity comply with safety- related national laws and regulations in order to achieve a risk level ALARP.
- The identification of training needs through a systematic and continuous analysis will help the State to fulfil this obligation with efficacy and efficiency.

Key Elements To Identify The Needs



CAA OVERSIGHT ACTIVITIES

DRAW THE PERIMETER OF THE ACTIVITIES DISCHARGED DIRECTLY OR THROUGH QUALIFIED ENTITIES

- air operators and general aviation operations;
- aerodromes and heliports;
- licensed personnel;
- manufacture and maintenance of aeronautical products;
- continuing airworthiness of aircraft;
- approved organizations and their approved services/programmes;
- air navigation services (including meteorological services, aeronautical telecommunications, search and rescue services, navigation aids and airspace infrastructure, charts and the distribution of aeronautical information).

For each area of activity the CAA should identify the appropriate technical qualifications and competences.

REGULATORY ENVIRONMENT

- Trends and growth of the industry
- Present technologies and emergency technologies
- Current and emergency business models
- Prescriptive-based regulations **vs** performance-based regulations

CAA ORGANIZATIONAL STATUS

- Strategies and Procedures
- Inspection and Certification Personnel Ratio
- Oversight and Industry Activities Ratio
- Activities Directly Managed or through Qualified Entities Ratio
- Prescriptive-based Regulations and Performance-based Regulations Ratio

STAFF ANALYSIS

→ This analysis focused on the CASI involved in the training process to determine whether they have the required skills.

Specifically, who will receive the training, what is their level of existing knowledge on the subject, and what is their learning style.

JOBS AND TASKS ANALYSIS

- The training developed should include relevant links to the content of the jobs and tasks being performed.
- This includes an evaluation of the jobs and tasks and the requirements for performing them in order to identify the skill, the knowledge and the attitude required.

PERFORMANCE INDICATORS

- To determine criteria to measure the effectiveness and the efficacy of the training in order to provide data for incremental adjustment to the initial and recurrent training programmes.

Training Approaches



SKILL-KNOWLEDGE APPROACH TRAINING

- It is considered as a traditional approach to training. Knowledge and skill are linked to single tasks.
- A limitation of this approach is that each task must be taught and assessed lending a rigid structure to the training.
- In complex systems or when jobs are evolving rapidly, as in the case of CASIs, it may not be possible to teach and assess each task, especially not periodically. Moreover, trainees may demonstrate the ability to perform tasks in isolation without being competent in their job.

COMPETENCY-BASED APPROACH TRAINING

- Such training is centered on skills, knowledge and attitudes to develop competencies that could be transferred across multiple and varied contexts.
- Typically, a number of competencies will be defined (as opposed to task lists which are comprehensive). These competencies will be demonstrated in the performance of a variety of jobs.

Basic Approach To Training Needs Analysis

Personnel Licensing and
Approved Training Organizations



OUTLINE THE JOBS OF A CASI

- Issue of licence, rating and certificate?
 - Revalidation or renewal of licence, rating and certificate?
 - Initial Certification of Approved Training Organization?
 - Oversight of Organization and Licences?
-
- Narrowing job descriptions offers distinct advantages, however it will increase the number of CASIs needed.
 - In cases where CASIs are required to cover a broad spectrum of jobs, it becomes essential identifying as many transversal tasks as possible.

DETERMINE THE CANDIDATE CASI PROFILE

- Knowledge of basic administrative legislation ?
 - Aeronautical background?
 - Pilot background?
 - Flight Instructor background
-
- A general background that is as close as possible to the job, helps in developing and maintaining competencies.
 - However, this will narrow the pool of candidates → a balance should be found.

ESTABLISH AN INITIAL TRAINING

- Define the objectives of the initial training in relation to the jobs of the new recruited CASI
- Define the objectives of the initial training in relation to the jobs the CASIs are assigned as they progress to higher responsibilities

NOTE: Many Authorities place great emphasis on the OJT part of the training in order to cover the learning of skills. Although OJTs are of great help, they are highly demanding in terms of human resources and tend to foster conformity which poorly adapts to the changing regulatory environment.

Define competencies as an objective rather than repeating knowledge or skill.

DEVICE RECURRENT TRAINING

→ Depending on the training methodology adopted, the recurrent should answer either to:

a) a periodic review of the regulation(s), consolidation of knowledge, confirmation of skills. Such periodic review is normally molded on a fixed schedule in time

Or

b) A dynamic assessment of performances, newly introduced practices, regulations, new technologies, changed environment.

RECURRENT TRAINING METHODS - Strength and Weakness

- A fixed schedule recurrent training is easy to handle. It is however predictable; it fosters doing by rote; it is scarcely responsive to a changing environment
- An effective dynamic assessment of performances is more complex to devise and handle and it may take some time before it reaches the desired effectiveness. It improves exponentially the performance of the CASI and leads to a considerable saving of financial and human resources.

**It is true that we train
what we know...**

**...it is important to strive
to train what is needed**



End of Module 4

Training Needs Analysis

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Integrated Training Roadmap for Inspectors Workshop

MODULE 5. Identifying Key Competencies

Giuseppe Sabatino

Synchronous Distance Learning – Virtual Classroom

June 22nd – 25th, 2020

The Competencies that Matter



COMPETENCE IDENTIFICATION STRATEGY

- The job and its tasks and subtasks, determine the competencies required
- The competencies determine the quality and the standard with which a job is performed

JOB(s)

1st step - analyse the job the CASIs are required to perform

→ The purpose of job analysis is mainly to gather information on:

- how,
- where and
- with what information

a job is done in order to determine:

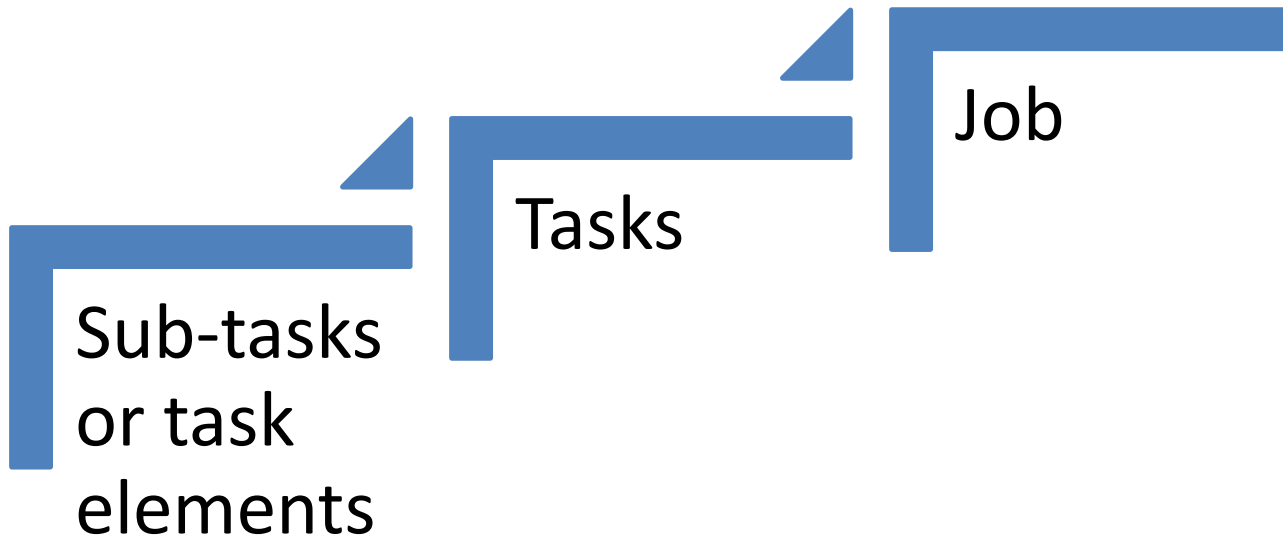
- the job performance objectives
- the skills,
- knowledge and
- attitudes.

In other terms the competencies required to achieve the job performance objectives.

JOB ELEMENTS

- A job can be broken down into a number of functions.
- A function represents a major subdivision of a job with a distinct identity.
- One function may be common to several jobs.
- Each function can be broken down into a number of tasks, these in turn depending on level of details can further divided in sub-tasks or task elements.

JOB ELEMENTS



JOB AND TASK ANALYSIS MAIN STEPS

- Establish the current job objective(s)
- Determine with the help of subject matter experts the job performance standard
- Collecting and analysing existing relevant documentation and information
- Review documentation and information with subject matter experts

JOB AND TASK ANALYSIS MAIN STEPS

- To determine the job performance standard a technique has been found particularly successful and this is known as DACUM which stands for «develop a curriculum».
- It is a form of guided brainstorming among several subject matter experts
- Review documentation and information with subject matter experts

JOB AND TASK ANALYSIS MAIN STEPS

- Reviewing the documentation and information with subject matter experts may lead to discover alternative ways of carrying out certain tasks which may prove more effective and may demand adjustments on the competencies required.

POPULATION..... CASI ANALYSIS

- The second most essential step is to establish the skill, the knowledge and the attitude, simply the competencies, already present in the population of the safety inspectors.

ASSESSING COMPETENCIES

- This second step can be carried out to establish the competencies already present against those identified to perform a job in the safety inspectors candidates.

PILLARS OF COMPETENCE - DEFINITION

→ Knowledge

There could be several types of knowledge. Although it is not necessarily linked to understanding, it is more generally defined as awareness or being learned through mainly cognitive faculty.

PILLARS OF COMPETENCE - DEFINITION

→ Knowledge

Knowledge can be measured with written or oral exams. Knowledge, or some degrees of it, is often the foundation of skills and attitudes.

PILLARS OF COMPETENCE - DEFINITION

→ Knowledge....an example

There could be a deep knowledge of what or how the aerodynamic laws work but not skill in flying an aeroplane or repairing it.

A knowledge can be obtained by rote, repetition, association and may not bring the ability or attitude to spot weakness and improvements.

PILLARS OF COMPETENCE - DEFINITION

→ Skill

Skill can be either verbal or motor.

Can be defined as the ability to do well a specific operation without necessarily having the knowledge or the attitude.

PILLARS OF COMPETENCE - DEFINITION

→ Skill

Skills can be measured in terms of speed, precision, technical quality, or a combination of them.

PILLARS OF COMPETENCE - DEFINITION

→ Skill....a few examples

A person can be very good at servicing an aeroplane without having knowledge what servicing is there for.

In such a case, any mistake can be detected simply as deviation from what he normally does.

PILLARS OF COMPETENCE - DEFINITION

→ Attitude

Academically is viewed as a person's way of thinking or feeling about someone, something or some situation.

However, in our context it is of interest to detect how that person adapts, and how positively critical he/she becomes with new learned knowledge and skills.

PILLARS OF COMPETENCE - DEFINITION

→ Attitude....an example

A new regulation requires to provide maintenance information by clustering them in a certain way.

Training is provided and changes to the software are implemented.

A person continues to produce information clustered in the proper way only when requested, preferring the previous way, or to slowly adapt to the new way.

ICAO BASIC COMPETENCE FRAMEWORK

→ ETHICS AND VALUES

Demonstrates integrity, transparency, openness, respect and fairness and considers the consequences when making a decision or taking action.

Acts consistently in accordance with fundamental values of the civil aviation authority.

ICAO BASIC COMPETENCE FRAMEWORK

→ COMMUNICATION

Effectively conveys, receives and understands information in oral, written and non-verbal modes.

ICAO BASIC COMPETENCE FRAMEWORK

→ PROBLEM SOLVING AND DECISION MAKING

Solves issues of varied levels of complexity, ambiguity and risk.

Makes timely decisions that take into account relevant facts, tasks, goals, constraints, risks and conflicting points of view.

ICAO BASIC COMPETENCE FRAMEWORK

→ INITIATIVE

Identifies and addresses issues independently, proactively and persistently to achieve objectives.

ICAO BASIC COMPETENCE FRAMEWORK

→ TECHNICAL EXPERTISE

Applies and improves technical knowledge and skills to perform safety oversight duties in a specific aviation discipline.

ICAO BASIC COMPETENCE FRAMEWORK

→ SYSTEMS THINKING

Understands and determines how the various components of management systems interact and affect the overall system safety performance.

ICAO BASIC COMPETENCE FRAMEWORK

→ RISK MANAGEMENT

Demonstrates an effective approach to the oversight of a stakeholder considering its business model, risk profile and its availability of resources.

ICAO BASIC COMPETENCE FRAMEWORK

→ CRITICAL THINKING

Analyses information in order to consistently achieve desired outcomes.

EASA ADDED NOTABLE COMPETENCIES

→ ROLE AWARENESS

Understands the implications of the inspector role.

EASA ADDED NOTABLE COMPETENCIES

→ PERFORMANCE- BASED ORIENTATION

Demonstrates an effective approach to oversight considering the stakeholder's business model, risk profile and organisational setup.

EASA ADDED NOTABLE COMPETENCIES

→ SELF- DEVELOPMENT

Engaged in a life- long learning process and able to operate effectively and flexibly within a change environment.

EASA ADDED NOTABLE COMPETENCIES

→ OVERSIGHT AND PROJECT MANAGEMENT

Makes the best use of available resources to ensure effective oversight and project management.

EASA ADDED NOTABLE COMPETENCIES

→ DEALING WITH COMPLEXITY

Able to navigate complex organisations and systems which operate in a global, interdependent and fast-evolving environment.

EASA ADDED NOTABLE COMPETENCIES

→ DECISION-MAKING AND RESPONSIBILITY

Makes sound decisions based on relevant facts, evidence and safety information as well as using common sense, expert judgement and sometimes "gut feeling".

Identifying Key Competencies Practical Cases



ASSIGNING INSPECTOR TO ATO APPROVAL - EASA APPROACH

JOB		
Activity	AMC	GM
ATO approval-training manuals-courses	AMC2 ARA.GEN.200 Management system-qualification of inspectors-sampling training flights or FSTD sessions	Range of activities may vary from instruction on SE to TR
Skill tests- assessment of competence-examiner instructor standardization	AMC2 ARA.GEN.200 Conducting sampling of training flights-check flights	Inspector with instructional experience same or similar types or class

ASSIGNING INSPECTOR TO ATO APPROVAL - EASA APPROACH

JOB		
Activity	AMC	GM
FSTD "user approval"		GM3 ARA.GEN.200(a)(2) Management system relevant ratings and certificates appropriate to the level of the training conducted in the ATO', as used in AMC2 ARA.GEN.200(a)(2)

ASSIGNING INSPECTOR TO ATO OVERSIGHT - EASA APPROACH

JOB		
Activity	AMC	GM
ATO oversight		the inspector has the instructional experience in the same or similar types or the same class of aircraft intended to be flown within the ATO (e.g. type rating to assess type training programmes);
ATO oversight		the experience in large CS-25 aircraft will not, for example, equip the inspector to assess the training programme in an ATO operating only SEP (land) aircraft

ASSIGNING INSPECTOR TO AOC APPROVAL - EASA APPROACH

JOB		
Activity	AMC	GM
AOC approval	The authority should define the required competencies to perform certification task -define the minimum qualification requirements- establish initial and recurrent training	b) An inspector should, by his/her qualifications and competencies, command the professional respect of the inspected personnel. - the following characteristics should be considered in order to establish aircraft types/classes with similar technical and operational characteristics:

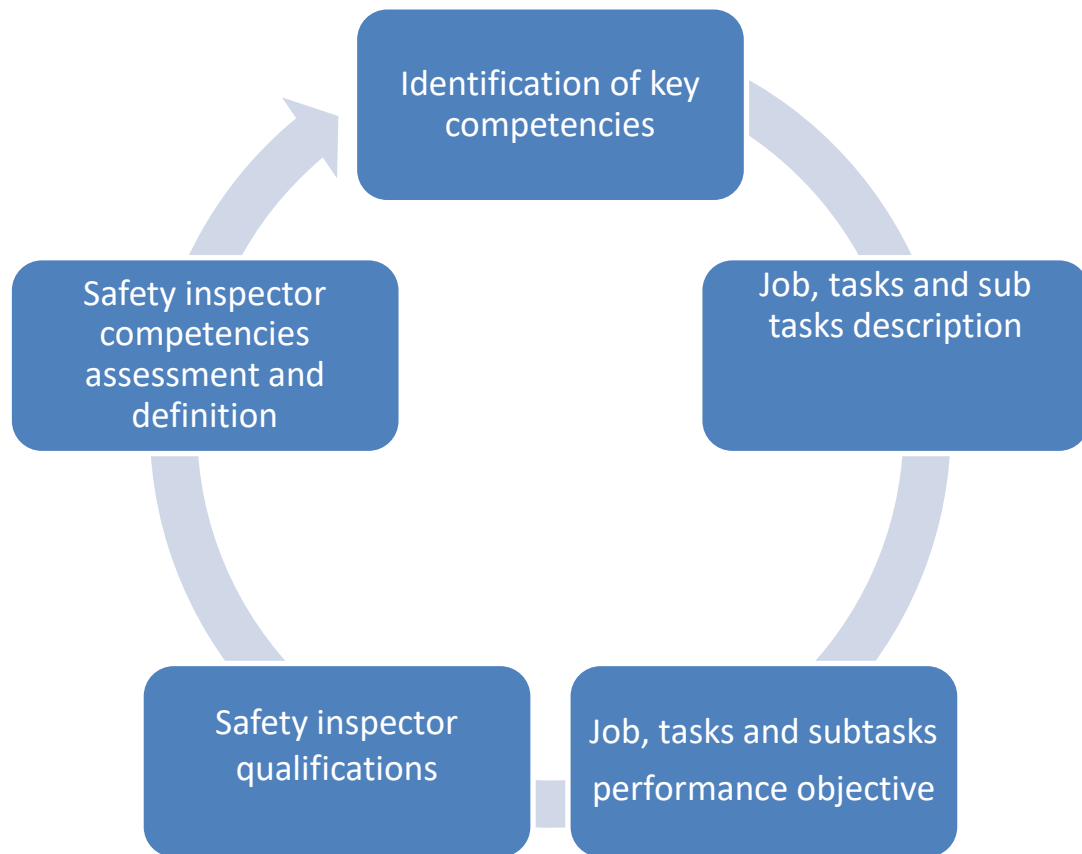
ASSIGNING INSPECTOR TO AOC OVERSIGHT - EASA APPROACH

JOB		
Activity	AMC	GM
AOC oversight	The authority should define the required competencies to perform certification task -define the minimum qualification requirements- establish initial and recurrent training-establish initial and recurrent training programmes in order to maintain and to enhance inspector competency at the level necessary to perform the allocated tasks	Inspector assigned to certification and oversight tasks should have sufficient experience in roles that enable a thorough understanding of the operational processes. Experience in operational management refers to previous appointments in functions of organisational relevance

Identifying Key Competencies Building a Practical Cases



KEY IDENTIFICATION PROCESS

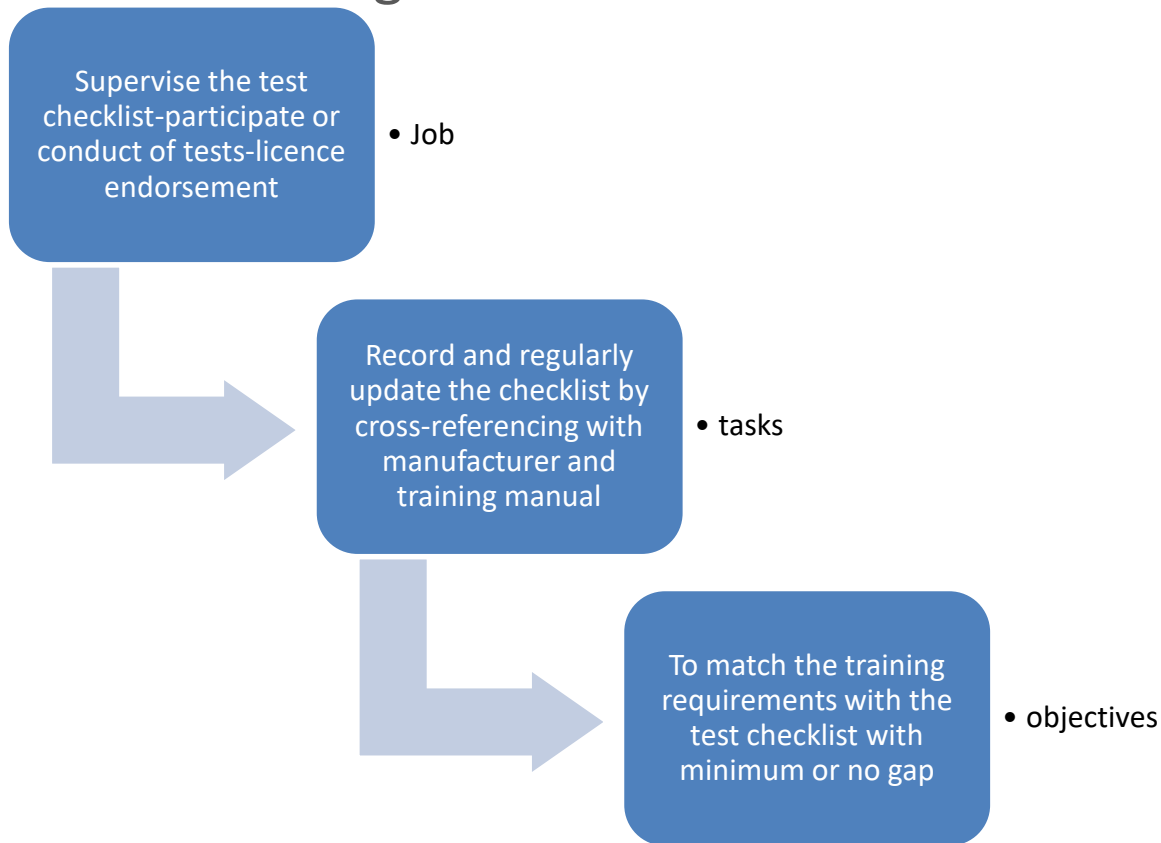


C.A.S.I ASSIGNEMENT

→ CASI assigned to oversight of type rating endorsement

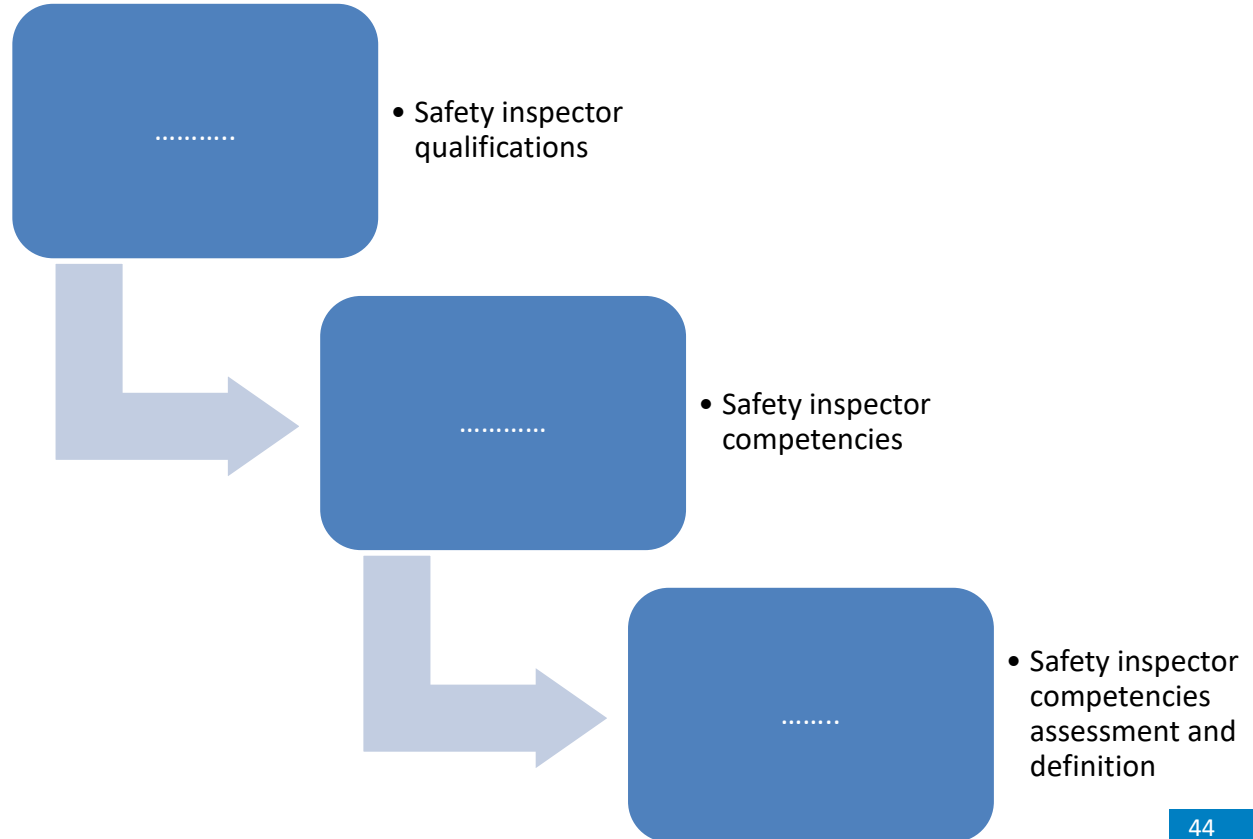
CASI ASSIGNMENT

→ Oversight of type or class rating endorsement



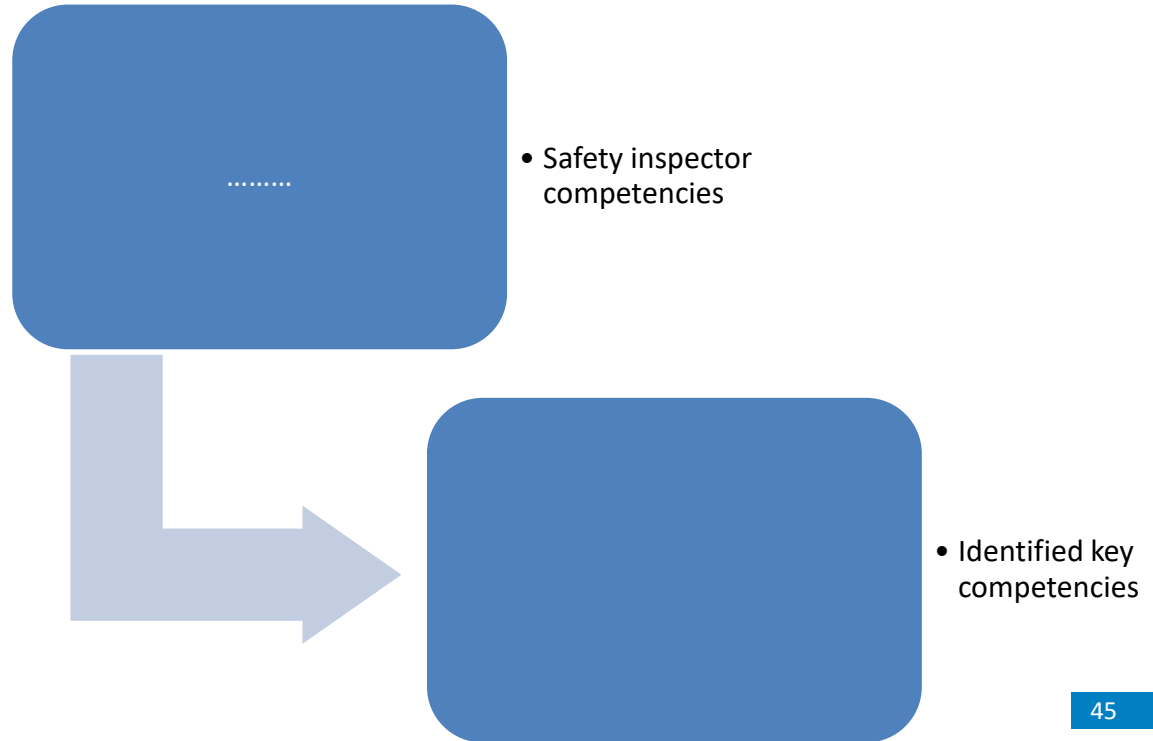
C.A.S.I ASSIGNMENT

→ Oversight of type or class rating endorsement



CASI ASSIGNMENT

→ Oversight of type or class rating endorsement



**Always ask...what is
needed to do a job**



End of Module 5

Identifying Key Competencies

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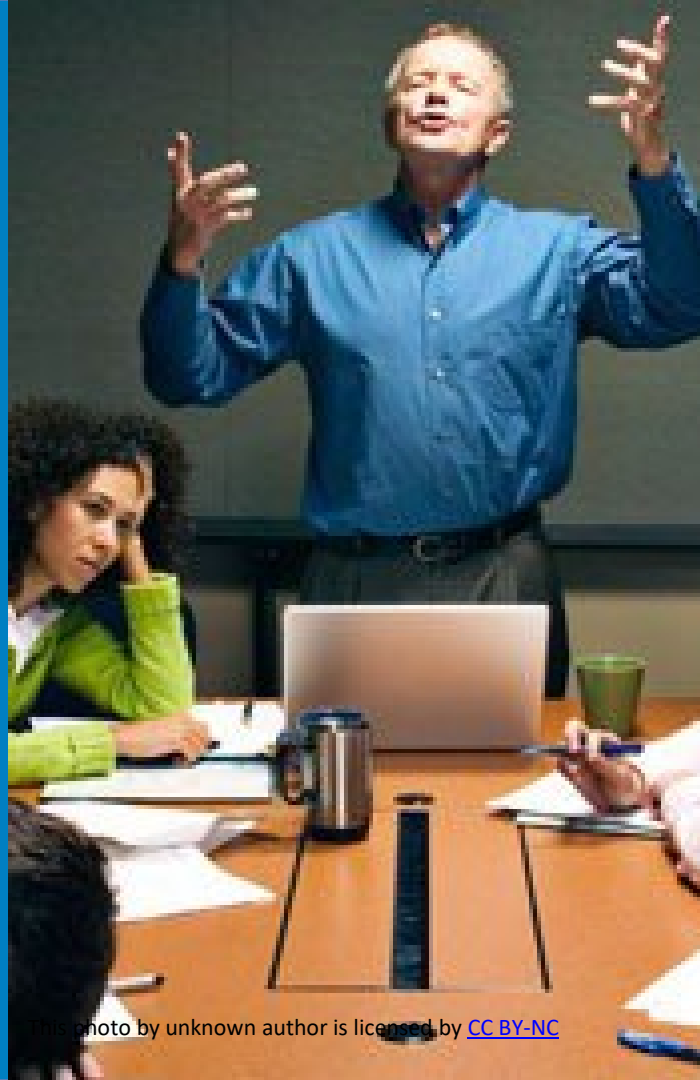
MODULE 6. Evaluating Current Competencies

Giuseppe Sabatino

Synchronous Distance Learning – Virtual Classroom

June 22nd – 25th, 2020

Principles behind the Evaluation



EVALUATING

We cannot evaluate without knowing what an evaluation is or.....what we are evaluating or looking for

EVALUATING

- The evaluation may be part of a formal testing program or it may be quite informal. It may be as elaborate as a simulation of a real-life problem or situation or as simple as questioning a single safety inspector candidate.

EVALUATION CHARACTERISTICS

- The process includes all the steps necessary to plan and prepare job-centered objectives and tests; each step affects the others.
- Evaluation must be seen as a natural consequence of:
 - **Level of Competence**
 - **Behavioral outcome**

EVALUATION CHARACTERISTICS

- Educational evaluation is a systematic process of judging how well individuals, programs have met job objectives.
- However, we can evaluate only learned behavior or competencies we can see, hear, or in any other way sense.
- Moreover, through such observations, we can include only samples of safety inspector behavior as a basis for judgment.

EVALUATION CHARACTERISTICS

- Evaluation is based on samples of behavior, therefore to be reliable and effective, the samples we evaluate must be representative of the safety inspector overall skill, knowledge and attitude in the measured area.

EVALUATION CHARACTERISTICS

→ Evaluation must be fair.

Trainers and evaluators may see candidates differently because of differences in expectations, intelligence, learning ability, aptitudes, attitudes, job knowledge, and ability to verbalize.

EVALUATION CHARACTERISTICS

- We need to ensure our observations are objective. We can often observe the candidate against job objectives in class discussions, interviews, papers, exercises, special projects, and tests. But this is where care is needed.
- We must weigh all such observations dispassionately in our overall evaluation program.
- Only by taking this precaution can we **minimize the effects of our subjective judgments that often influence informal day-to-day evaluations and make them invalid**

EVALUATION CHARACTERISTICS

→ Evaluation must be planned involving subject matter experts to minimize its subjectivity and the personal bias of individual trainers or evaluators.

A planned system of evaluation will measure what was trained or required rather than what might or might not have been taught or required at the whim of the trainer or evaluator .

EVALUATION CHARACTERISTICS

- Data for evaluation are used normally in two ways:
 - **Criterion-referenced or objective-referenced**
 - **Norm referenced**

EVALUATION CHARACTERISTICS

- If the goal is to compare the achievement of our safety inspectors or candidates to specific objectives, we should use criterion-referenced or objective-referenced testing and analysis programs.
- **It is encouraged criterion-referenced testing and analysis.**

EVALUATION CHARACTERISTICS

- If the goal is comparing the performance of the competencies of individual safety inspector or candidate, then the norm-referenced evaluation method is adopted.

EVALUATION CHARACTERISTICS

- The instruments we use to measure achievement must be:
 - **Reliable**
 - **Valid**
 - **Objective**
 - **Comprehensive**
 - **Differentiating**

EVALUATION CHARACTERISTICS

→ Reliability

A reliable measuring instrument is one that yields consistent results. Change occurs often during subsequent training and evaluation wherein knowledge, skill and attitude do not remain constant. Therefore, applying the reliability test too strictly might lead us to the wrong conclusions. Where repeated testing might reflect growth in knowledge, we might incorrectly judge that the differences point to the unreliability of the test.

EVALUATION CHARACTERISTICS

→ Validity

A measuring instrument is valid when it measures exactly what it was designed and meant to measure. A test must exhibit the same characteristic of validity throughout the spectrum of various subjects

If we want evaluation instruments to measure the ability of a safety inspector or a candidate to apply skill, it must measure the ability to manipulate appropriately and not simply the ability to recall facts or explain the sequence of the skill.

EVALUATION CHARACTERISTICS

→ Validity

It should now be clear that when we state the **job objectives** in terms of specific abilities, the test should require safety inspectors or the candidate to demonstrate these abilities.

Likewise, when we state objectives in terms of factual knowledge, skill, and attitudes, the test should have observable behavior we are willing to accept as evidence of their achievement.

EVALUATION CHARACTERISTICS

→ Objectivity

The ability to grade with a relative absence of personal judgment or subjectivity.

EVALUATION CHARACTERISTICS

→ Objectivity

Essay tests tend to be subjective because our opinions of a safety inspector or candidate's organization, handwriting, seriousness, etc., may influence the grade we give the test.

The grades we give on essay tests may vary from day to day, candidate to candidate, or from one scorer to another.

EVALUATION CHARACTERISTICS

→ **Comprehensiveness**

This characteristic may encounter severe constraints;

- There is usually limited testing time available.
- Sometimes there are too many non-critical job or task objectives rather than focusing on the critical ones— this would have the same effect of not sampling comprehensively.

EVALUATION CHARACTERISTICS

→ **Comprehensiveness**

A test or rating must liberally sample the knowledge, skills and the attitudes representative of the stated job objectives.

An exam should not test just one area of the curriculum in depth at the expense of other areas that also need evaluation.

EVALUATION CHARACTERISTICS

→ Differentiating

must be able to detect and measuring significant differences in skills, knowledge and attitudes

EVALUATION CHARACTERISTICS

→ Differentiating

There are two methods of differentiation:

- **Norm-referenced differentiation**
- **Criterion-referenced differentiation**

EVALUATION CHARACTERISTICS

→ Differentiating

In a norm-referenced evaluation program, a test or rating must measure small and sometimes relatively insignificant differences among the elements we're measuring.

The goal is to compare individual performances against each other to show relative position within the group (comparing to a norm)

EVALUATION CHARACTERISTICS

→ Differentiating

In a criterion referenced evaluation program, a test or rating must compare the of elements or items to a standard.

The primary function of differentiation in criterion-referenced testing is to make a clear distinction between those safety inspector who have mastered an objective and those who have not. Rank ordering or letter grading is of secondary importance.

Keys Points For A Test



EVALUATION TESTING

→ Evaluation-Preparation of a Test

General suggestions when writing test items of any type:

- **Keep the wording simple and direct**
- **Avoid tricky or leading questions**
- **Keep all items independent of other items on the test**
- **Crucial words should be highlighted**
- **Avoid negatives**

EVALUATION TESTING

→ Evaluation-Preparation of a Test

General suggestions when writing test items of any type:

- **If diagrams or pictures yield more information than words.....use them**
- **Avoid time stretched tests**

EVALUATION TESTING

→ Evaluation-Preparation of a Test

Tests can be multiple-choice, true-false, matching examples, fill-in gaps within a given choice. Although they are not easy to write they have three major advantages:

- Candidates have to identify the correct answer only
- It is easier to reach a score without personal bias or opinion
- They can be very good for computers and clerks to work on the score

EVALUATION TESTING

→ Evaluation-Preparation of a Test

Critical Factors
Chance for guessing
Cover a lot of material in a short period of time
Easy to score
Easy to construct
Measures all KSA
Statistically handling

EVALUATION TESTING

→ Evaluation-Preparation of a Test

Sometimes, too often we are concerned with a score of percentage of test takers.

But in doing so we may miss the primary purpose of evaluation programs that is to measure the achievement of competence objectives.

EVALUATION TESTING

→ Evaluation-Preparation of a Test

The primary concern of a CRT is to measure, report, and analyze safety inspector performance as it relates to specific, significant job objectives.

EVALUATION TESTING

→ Evaluation-Preparation of a Test

The criterion referenced test must take into consideration what the safety inspector or candidate already knows.

If too many safety inspectors already possess what we intend to teach, training design must take this into account otherwise we are wasting time and resources by making them take the course

EVALUATION TESTING

- **Evaluation-criterion referenced analysis**
- There are two very effective formulas that give us useful data to determine the effectiveness of criterion-referenced evaluation programs:
 - Ease Index (EI)
 - Differentiation Index (DI)

EVALUATION TESTING

→ Evaluation-criterion referenced analysis

→ Ease Index

The ideal CRT situation includes a pretest and a post-test.

These tests give us information about what the safety inspector(s) know about our objectives before taking on the training (nonmasters) and then measure how much was learned as a result of our course (masters).

EVALUATION TESTING

→ Evaluation-criterion referenced analysis

→ Ease Index

$R/N (100) = \% \text{ Ease Index}$

R = Number who answered item correctly divided by N = Number who took the test.

Multiply the result by 100.

EVALUATION TESTING

→ Evaluation-criterion referenced analysis

→ **Differentiation Index**

Simply measures the difference between the EI of a test item on the pre-test and that same item on a post-test.

More often than not, when using criterion-referenced analysis, the same test items are used for the pre-test and post-test.

Although this is not the only method used in CRT item analysis, it is a very effective method and provides very usable data.

EVALUATION TESTING

→ Evaluation-norm referenced analysis

Norm-referenced analysis is a classification or label applied to the use of evaluation data for comparing test takers to each other rather than to a specific job or task objective

EVALUATION TESTING

→ Evaluation-norm referenced analysis

Would it be possible to use both methods norm referenced and criterion referenced ?

EVALUATION TESTING

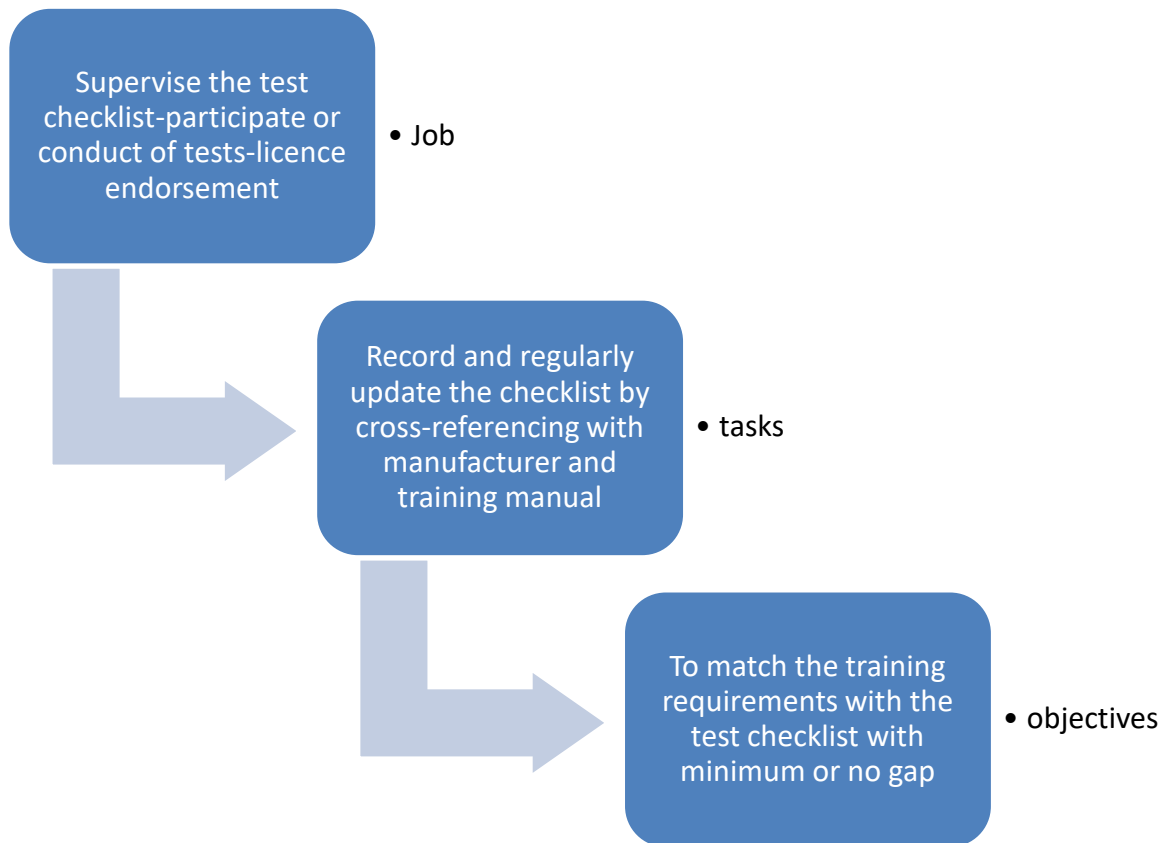
→ Evaluation-norm referenced analysis

If we set a minimum standard for passing and we also desire to rank order test takers for the purpose of recognizing who performed better than others, then we are using both criterion- referenced measurement and norm-referenced analysis.

A Practical Exercise



C.A.S.I ASSIGNMENT



TESTS EVALUATION CHOICE

→ Evaluation-criterion referenced

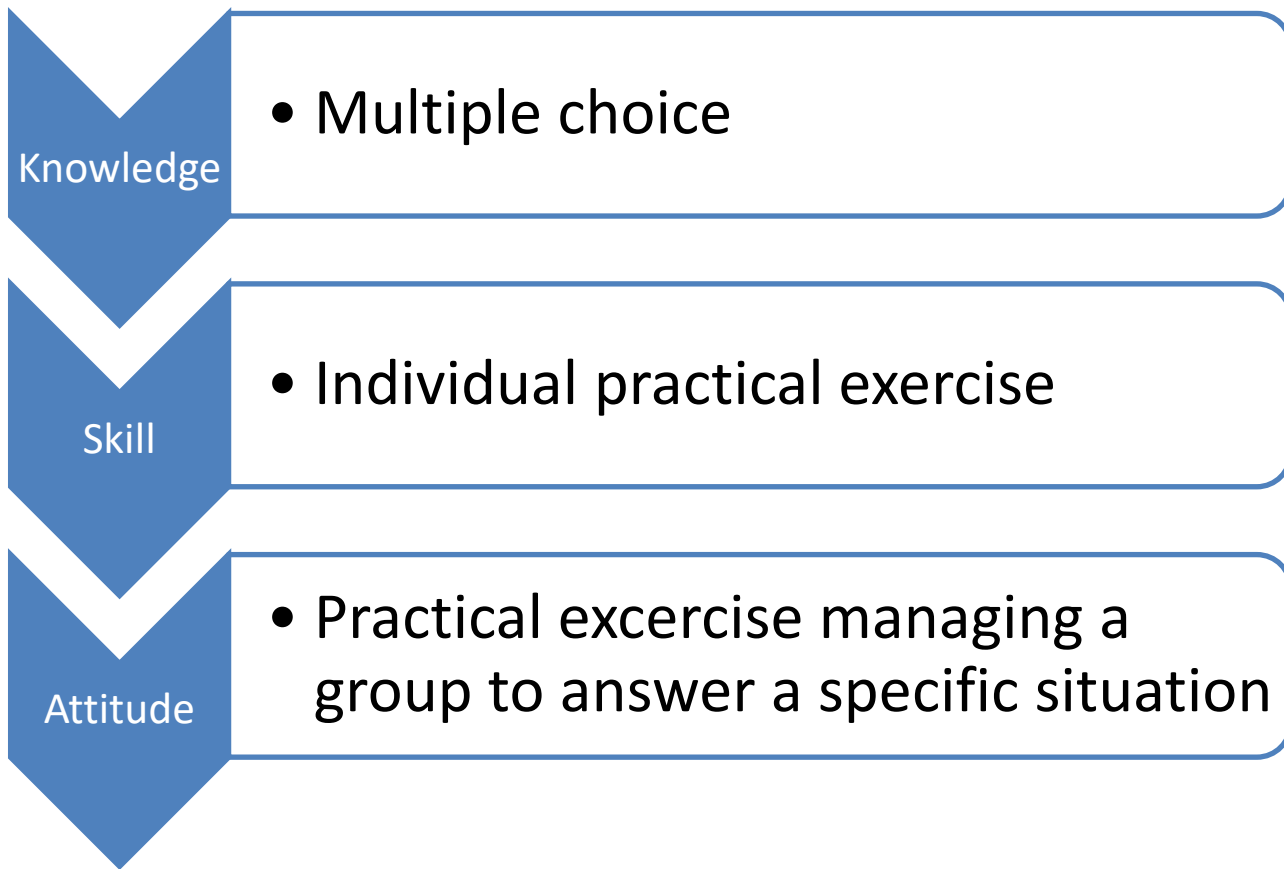
Clearly our objectives is to determine the competencies or their gap.

In such a case the choice is criterion referenced.

Time and human resources may represent a logistical limitation.

The score that each test takers may achieve is simply to establish the competencies present and to provide data to mould the training

TESTS EVALUATION CHOICE AND CONSTRAINTS



End of Module 6

Evaluating Current Competencies

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Integrated Training Roadmap for Inspectors Workshop

Module 7 - Prioritising Training Needs

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Aeronautical Consultant. Airworthiness Expert

Synchronous Distance Learning – Virtual Classroom, June 22nd – 25th 2020

EU-South East Asia Aviation Partnership Project (EU-SEA APP)

*This project is funded by the European Union and implemented by
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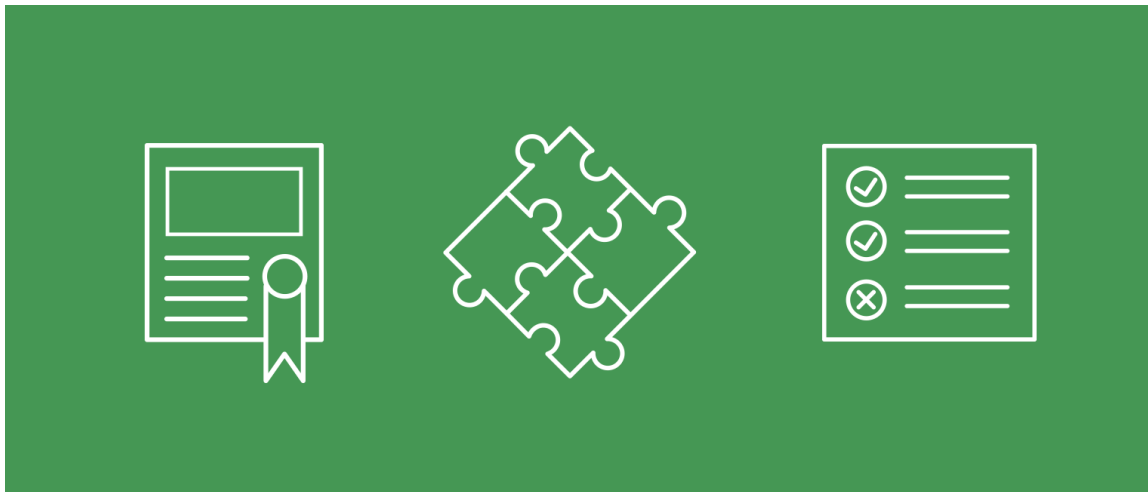
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General Considerations



Definitions

- **Qualification Profile.** Set of knowledge and experience, generally grouped through elements of training (theoretical-practical and OJT), experience and periodic assessment, **necessary to perform a function / task with the appropriate competencies and skills.**
- **Qualification.** Status of compliance with the qualification requirements, and which therefore allows the tasks corresponding to said profile to be carried out with the conditions and limitations that are established in the authorization.



Definitions

- **Training Needs.** Those that result from analyzing the difference between the training identified in the qualification profile of each task and the training already carried out by the individual carrying out the task. With these needs, the Annual Training Plan will be drawn up.
- **Mandatory Training.** They are those strictly necessary for the performance of a certain qualification profile, which without their realization will not receive the qualification for that matter.
- **Limiting Training.** They are those that, being necessary for the performance of a certain qualification profile in all its applicable areas, the fact of not undertaking it out does not totally disable the qualification profile, but rather imposes limitations on the qualification, in the applicable area.



Definitions

- **Recommended Courses.** They are those that can improve the efficiency in the performance of a certain qualification profile but that are not strictly necessary for the qualification.
- **Recognition.** Confirmation that a certain training and / or experience is passed by the applicant, validating the equivalent training / experience provided and with the purpose of continuing enabled in a specific qualification profile.
- **Training Action.** Activity consisting of delivering knowledge with a teaching objective, characterized by having **Objective, Content and Duration.** Generally it will take the form of a Course or Seminar.



Definitions

- **Course.** Course is understood as the set consisting of objectives, minimum or relevant content and minimum duration, which must be covered to acquire the desired knowledge. The courses are developed as training actions, which are scheduled from year to year or when necessary.
- **Seminar.** Seminar is understood as the theoretical training to update theoretical knowledge already acquired in a course. Like the courses, its implementation is materialized in training actions. It may be linked to knowledge or initial training actions, when a refresh period has been established; or it may be linked to one or more complete qualification profiles.
- **Training Plan:** Set of training actions planned in an annual period that respond to the training needs identified to meet the qualification profiles of all CAA personnel.



Qualification Profile to Prioritise Training Needs



Definition of Qualification Profiles

- It is the responsibility of each Department / Division to define the necessary Qualification Profiles for the activities it carries out, preparing and keeping the so-called “Qualification Profile Requirements”.
- In general, the Qualification Profile is made up of different elements, as considered, to obtain the initial qualification or to maintain the qualification:
 - Initial Qualification
 - **Academic Training.**
 - Previous experience.
 - **Initial Theoretical-Practical Training.**
 - On The Job Training.
 - Assessment of skills and abilities.
 - Maintenance of the Qualification
 - **Continuous Theoretical-Practical Training.**
 - Continuous Practical Experience.
 - Supervised Practice Re-qualification Experience.
 - Periodic competence assessment.

Definition of Qualification Profiles

- To know the prioritization of training needs, it is necessary to know the content and structure of a qualification profile in relation to training.
- **Academic Training:** The different Official Degrees, Licenses or Professional Qualifications (AML, ATPL, CCL, ATCO, etc ...), that are required of the personnel within a Qualification Profile.
- **Previous experience:** Practical knowledge obtained prior to the assignment of a certain qualification profile, generally in other jobs and / or organizations.
- **Initial Theoretical-Practical Training:** Knowledge or training actions, related to a specific qualification profile, which are considered necessary to carry out for its proper performance.

Definition of Qualification Profiles

- 3 types of **theoretical-practical training** are defined:
 - **Mandatory**: it is strictly necessary for compliance with a certain qualification profile, and without which the Habilitation in it will not be received.
 - **Recommended**: they are not strictly necessary for the qualification, but can improve the efficiency in the performance of a certain qualification profile.
 - **Limiting**: those that, being necessary for compliance with a certain qualification profile, the NO performance does not totally disable it, but implies qualification limitations, in the applicable area.



Definition of Qualification Profiles

- **Continuous theoretical-practical training**: Refreshment or update the initial theoretical-practical training, which will be carried out at defined regular intervals or when changes in requirements make it necessary to keep your knowledge up-to-date. This continuous theoretical-practical training will contain, at least, all changes in legislation, practices or in the aeronautical industry that affect the corresponding profile.
- In general, the theoretical-practical continuous training may correspond to:
 - **Courses**: Consistent in the repetition of the initial training action (with the relevant updates), when an expiration has been defined for the knowledge or initial training actions.
 - **Refreshment Seminar**. Consisting of a knowledge update. It may be linked to the initial knowledge or training actions, when a refreshment period has been established; or may be linked to one or more complete qualification profiles.

Assignment of Qualification Profiles

- Each Department will assign to its staff the necessary qualification profiles to carry out the tasks associated with their job, and which is considered necessary to monitor.
- The documents called “**Assignment of qualification profiles**” will be edited independently by each Department, and may be subdivided by Units / Divisions depending on the magnitude and scope.
- These documents will contain a table that relates all the personnel of each Department with the corresponding profiles that they have associated and their respective functional areas, regardless of whether profiles defined by other Departments are assigned.
- These documents will be reviewed every time there are changes.

Prioritising Training Needs

- The following training requirements, which define the qualification profile of an CASI, are those that will define the PRIORITIES IN TRAINING NEEDS:
 - **Academic Training**: It will define the scope of action, with the consequent limitations or not. It will depend on the internal promotion of the CAA that you want to extend or expand the academic training of a CASI to access other roles within the aeronautical inspection.
 - **Initial Theoretical-Practical Training**: It will be the responsibility of the CAA to establish in the annual Training Plan the training that it is necessary to provide to the new qualification profiles, to carry out the inspection tasks that the CAA intends to entrust. This will define, together with academic training, the complete qualification profile; along with the required experience.
 - **Continuous Theoretical-Practical Training**: It will be the responsibility of the CAA to establish in the annual Training Plan the training that it is necessary to provide to the existing qualification profiles to maintain this profile.



Assignment of Qualification Profiles

- In the event that within the set of training required to meet a specific qualification profile, any planned training is missing or has expired:
 - Some **limitations** will be imposed on the scope of the qualification profile; as long as said formation is considered by the CAA as **Limiting (L)**.
 - The CASI qualification profile will be **temporarily suspended** for those inspection activities for which said training has been considered by the CAA as **Mandatory (M)**.



Qualification Profiles

- **Qualification Profile:** It is the document that certifies the state of compliance with the requirements of the qualification profiles assigned to a CASI  **Authorisation status.**
- It is provided for CAA employees, where it is shown for each qualification profile:
 - Status of Theoretical-Practical Training required (initial and continuous).
 - Status of Practical Training at Work (OJT) required.
 - Assessment of skills and abilities.
 - Status of Continuous Experience required.
 - Periodic evaluation of competence.
 - Expiration dates of the Authorization in the qualification profiles.
 - Expiration dates of Theoretical-Practical Training.

Qualification Profiles

- The statuses considered in a qualification profile are the following:
 - **Authorized**. When all the requirements are met.
 - **Not Authorized**. When any of the requirements is not met.
- The certificate is renewed as the training / continuous experience requirements expire and the necessary training and / or practical training actions are carried out.
- In general, the validity of the authorization in a qualification profile is issued until December 31 of the current year.



Example of Training for Qualification Profiles



Academic Training & Previous Experience

A-DSA-Q&T-01 DSA-COAA			ACADEMIC TRAINING & PREVIOUS EXPERIENCE														
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	ACADEMIC QUALIFICATION		OTHER TRAINING											PREVIOUS PROFESSIONAL EXPERIENCE	
			AE	AD	AMT	CPL(A)	AM	CPL(H)	ATPL(A)	ATPL(H)	TRI(A)	TRI(H)	FI	CCL	UD		GOS
MAINTENANCE ORGANISATIONS	Maintenance organisation inspection	P00188	X	X	X												
AIRCRAFT MAINTENANCE TRAINING AND LICENSING	Maintenance training inspection	P00189	X	X	X												
	AML Examination	P00190	X	X	X		X										
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing airworthiness inspection	P00191	X	X	X												
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp inspection	P00192	X	X	Ls1	Ls2											For AMT & CPL(A): 2 years
	Ramp inspection Team Leader	P00288	X	X	Ls1	Ls2											For AMT & CPL(A): 2 years
	Ramp inspection Expert / Team Member	P00233	X	X	Ls1	Ls2											
AIR OPERATORS (CAT, AW & GA)	Minimum Equipment List (MEL)	P00195	X	X			X	X								X	
	Air Operator inspection (OPS Inspector)	P00196	X	X													
	Air Operator inspection (FOI-A)	P00198					EP3		EP1								See EP1 & EP3
	Air Operator inspection (FOI-H)	P00200						EP3		EP2							See EP2 & EP3
	Air Operator inspection (Expert)	P00202	X	X										EP5	EP4	E P 6	See EP4, EP5 & EP6
INITIAL AIRWORTHINESS CERTIFICATION	National CofA & Permit to Fly	P00219		X													N/A
	EASA CofA & Permit to Fly	P00220		X													N/A

AE	AERONAUTICAL ENGINEER
AD	AERONAUTICAL DEGREE
AMT	AIRCRAFT MAINTENANCE TECHNICIAN
CPL(A)	COMMERCIAL PILOT LICENSE (AEROPLANE)
CPL(H)	COMMERCIAL PILOT LICENSE (HELICOPTER)
ATPL(A)	AIRLINE TRANSPORT PILOT LICENSE (AEROPLANE)
ATPL(H)	AIRLINE TRANSPORT PILOT LICENSE (HELICOPTER)
TRI(A)	TYPE RATING INSTRUCTOR (AEROPLANE)
TRI(H)	TYPE RATING INSTRUCTOR (HELICOPTER)
FI	FLIGHT INSTRUCTOR
CCL	CABIN CREW LICENSE
UD	UNIVERSITY DEGREE
GOS	GROUND OPERATIONS SPECIALIST
AM	AERONAUTICAL MANAGER

Source: AESA. Qualification Profiles Requirements.

Limitations for Academic Training & Previous Experience

A-DSA-Q&T-01 DSA-COAA			LIMITATIONS			
Functional Area	Qualification Profile	Code	Training where limitation is applied	Acronym	Applicability	Limitaciones
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp inspection	P00192	INITIAL	Ls1	AMT	Except elements "A" of the C / L that are not related to maintenance
			INITIAL	Ls2	CPL(A)	Except elements "C" y D1 of the C/L
AIR OPERATORS CAT, AW & GA)	Air Operator inspection (FOI-A)	P00198	INITIAL	EP3	AM	Have or have had a CPL License; 1000 FH
			INITIAL	EP1	ATPL(A)	Hold or have hold an ATPL License; 4,000 FH of which 2,000 as PIC; Operational Management Experience within an Air Operator or Experience as Examiner or Instructor; Have or have had a valid Type Rating
	Air Operator inspection (FOI-H)	P00200	INITIAL	EP3	CPL(H)	Hold or have hold a CPL license; 1,000 FH
			INITIAL	EP2	ATPL(H)	Hold or have hold an ATPL License; 2,000 FH of which 800 as PIC; Operational Management Experience within an Air Operator or Experience as Examiner or Instructor; Have or have had a valid Type Rating
	Air Operator inspection (Expert)	P00202	INITIAL	EP4	AE/AD/UD	Have 3 years of experience in some of the areas of Air Operations
			INITIAL	EP5	CCL	5 years of experience as a CC; have served as Flight Attendant in CAT Operations.
			INITIAL	EP6	GOS	5 years of experience in Ground Operation

Source: AESA. Qualification Profiles Requirements.

Initial Theoretical-Practical Training (GENERAL)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (GENERAL)								
						CONTINUING AIRWORTHINESS COURSES					
FUNCTIONAL AREA	Qualification Profile	Code	LICENCES	LANG.	QUALITY	GENERAL AIRCRAFT KNOWLEDGE					
			FCL	ENGLISH	QS	<5700KG	>5700KG	HELIC	BALLOON	GLIDER	ENGINES
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188		Lm1		L	L	L	L	L	R
AIRCRAFT MAINTENANCE TRAINING & LICENCES	Maintenance Training Inspection	P00189				L	L	L	L	L	
	AML Examinations	P00190				R	R	R	R	R	
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191				L	L	L	L	L	R
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	R	M		L	L	L			
	Ramp Inspection Team Leader	P00288	R			L	L	L			
	Ramp Inspection Expert	P00233	R	M		L	L	L			

Initial Theoretical-Practical Training (GENERAL)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (GENERAL)										
			CONTINUING AIRWORTHINESS COURSES					INITIAL AIRWORTHINESS COURSES					
FUNCTIONAL AREA	Qualification Profile	Code	HH.FF		MAINTENANCE TECHNIQUES			CERTIFICATION					
			HH.FF-M	HH.FF-O	NDT	FTS	MSP	P21	POA	DOA	CofA	CofA N	TC
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188	M		M	M	M						
AIRCRAFT MAINTENANCE TRAINING & LICENCES	Maintenance Training Inspection	P00189	M			LI1	LI1						
	AML Examinations	P00190	R				R						
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191	M			M	R				R		
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	R	R			R						
	Ramp Inspection Team Leader	P00288											
	Ramp Inspection Expert	P00233	R	R			R						

Initial Theoretical-Practical Training (GENERAL)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (GENERAL)								
FUNCTIONAL AREA	Qualification Profile	Code				CONTINUING AIRWORTHINESS COURSES					
			LICENCES	LANG.	QUALITY	GENERAL AIRCRAFT KNOWLEDGE					
			FCL	ENGLISH	QS	<5700KG	>5700KG	HELIC	BALLOON	GLIDER	ENGINES
AIR OPERATORS (CAT, AW & GA)	Minimum Equipment List	P00195		R		L10	L11	L12			
	Air Operator Inspector (OPS Inspector)	P00196	M	R		L10	L11	L12	L13	L14	
	Air Operator Inspection (FOI-A)	P00198	M	R		L10	L11	L12	L13	L14	
	Air Operator Inspection (FOI-H)	P00200	M	R		L10	L11	L12	L13	L14	
	Air Operator Inspection (Expert)	P00202	M	R		L10	L11	L12	L13	L14	
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219				M	R	R	R	R	
	EASA CofA & Permit to Fly	P00220				M	R	R	R	R	

Initial Theoretical-Practical Training (GENERAL)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (GENERAL)										
			CONTINUING AIRWORTHINESS COURSES					INITIAL AIRWORTHINESS COURSES					
FUNCTIONAL AREA	Qualification Profile	Code	HH-FF		MAINTENANCE TECHNIQUES			CERTIFICATION					
			HH.FF-M	HH.FF-O	NDT	FTS	MSP	P21	POA	DOA	CofA	CofA N	TC
AIR OPERATORS (CAT, AW & GA)	Minimum Equipment List	P00195											
	Air Operator Inspector (OPS Inspector)	P00196		M									
	Air Operator Inspection (FOI-A)	P00198		M									
	Air Operator Inspection (FOI-H)	P00200		M									
	Air Operator Inspection (Expert)	P00202		M									
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219	R		R	R	R	R			M	M	
	EASA CofA & Permit to Fly	P00220	R		R	R	R	M			M		

Initial Theoretical-Practical Training (SPECIFIC)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (SPECIFIC)																			
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	AIRCRAFT MAINTENANCE					CONTINUING AIRWORTHINESS				AIR. REG	RAMP INSPECTION									
			P145	MOAP	BASA	P66	P147	CA-INT.	CAMO	MP	RA-ACAM	DRA	SAFA	SANA	PSN/SF	OFP-R	RINP	SOFT-RAMP	ALCOH-RAMP	FCL-RAMP	DG-R	
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188	M	Lm2	M	M	M	M	R													
AIRCRAFT MAINTENANCE TRAINING & LICENCES	Maintenance Training Inspection	P00189	R			M	M	M														
	AML Examinations	P00190				M	R															
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191	R					M	M	M	M											
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	R		R				R	R	R		M	Ls3	M	Ls4	M				Ls5	
	Ramp Inspection Team Leader	P00288											R	R	M	R	R	M	R	R	R	
	Ramp Inspection Expert	P00233	R		R				R	R	R		M	Ls3	M	Ls4	M				Ls5	
AIR OPRATORS (CAT, AW & GA)	Minimum Equipment List	P00195																				
	Air Operator Inspector (OPS Inspector)	P00196																				
	Air Operator Inspection (FOI-A)	P00198																				
	Air Operator Inspection (FOI-H)	P00200																				
	Air Operator Inspection (Expert)	P00202																				
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219																				
	EASA CofA & Permit to Fly	P00220							R	R	R											

Initial Theoretical-Practical Training (SPECIFIC)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (SPECIFIC)																						
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	AERIAL SERVICES						OPERATIONS																
			83 Bis	LIEX	ATEF	COPE	OOAA	AOAA	PPL	IFR	AG	SERA-AUR	SPA-1	SPA-2	SPA-H	MEL	AOPS	COES	SPO	CAT-1	FTL	CAT-2	EQUIP	SPA DG	
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188																							
	Maintenance Training Inspection	P00189																							
AIRCRAFT MAINTENANCE TRAINING & LICENCES	AML Examinations	P00190																							
	Continuing Airworthiness Inspection	P00191							R				Lo1	Lo2	Lo3	R	R						M		
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	R						R	R						R	R	R	R	R	R	R	R		
	Ramp Inspection Team Leader	P00288																					R		
	Ramp Inspection Expert	P00233	R						R	R						R	R	R	R	R	R	R	R		
AIR OPRATORS (CAT, AW & GA)	Minimum Equipment List	P00195											L5	L6	L7	O	M	L3	L2		M		M		
	Air Operator Inspector (OPS Inspector)	P00196							M	R	L4	M	L5	L6	L7	R	M	L3	L2	L1	M	L1	M	L8	
	Air Operator Inspection (FOI-A)	P00198									L4	M	L5	L6	L7	R	M	L3	L2	L1	M	L1	M	L8	
	Air Operator Inspection (FOI-H)	P00200									L4	M	L5	L6	L7	R	M			L1	M	L1		L8	
	Air Operator Inspection (Expert)	P00202									L4	R	L5	L6	L7	R	M	L3	L2	L1	R	L1	R	L8	
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219							R																
	EASA CofA & Permit to Fly	P00220							R																

Limitations for Initial Theoretical-Practical Training

A-DSA-Q&T-01 DSA-COAA			DEFINICION DE LIMITACIONES DEFINIDAS EN EL ANEXO			
Functional Area	Qualification Profile	Code	Training where Limitation is applied	Acronym	Applicability	Limitations
MAINTENANCE ORGANISATIONS	Maintenance Organisation Inspection	P00188	GENERAL	Lm1	ENGLISH Course	Except for Foreing P145 organisations
AIRCRAFT MAINTENANCE TRAINING & LICENCES	Maintenance Training Inspection	P00189	GENERAL	Ll1	FTS S MSP Course	AMLs issuance only

A-DSA-Q&T-01 DSA-COAA			LIMITATIONS DEFINITION			
Functional Area	Qualification Profile	Code	Training where Limitation is applied	Acronym	Applicability	Limitations
MAINTENANCE ORGANISATIONS	Maintenance Organisation Inspection	P00188	SPECIFIC	Lm2	MOAP course	Except for Foreing P145 organisations
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191	SPECIFIC	Lo1	SPA-1 course	Except for Operationa Approvals
			SPECIFIC	Lo2	SPA-2 course	Except for AEROPLANE Special Approvals
			SPECIFIC	Lo3	SPA-H course	Except for HELICOPTER Special Approvals
SAFA/SANA INSPECTION RAMP	Ramp Inspection SAFA/SANA	P00192	SPECIFIC	Ls3	SANA course	Except for SANA inspections
			SPECIFIC	Ls4	OFR-P course	Excepts elements A13 y A14 of the C/L
			SPECIFIC	Ls5	DG-R Course	Except DG elements of the C/L

Limitations for Initial Theoretical-Practical Training (OPS)

A-DSA-Q&T-01 DSA-COAA			LIMITATIONS DEFINITION			
Functional Area	Profiles	Code	Training	Acronym	Applicability	Limitaciones
	Minimum Equipment List (MEL)	P00195	SPECIFIC	L0	CAT-1 Course	For CAT regulatory control supervision actions.
			SPECIFIC	L2	SPO Course	For regulatory supervision and control of aerial work.
			SPECIFIC	L3	COE Course	For regulatory supervision and control actions of aerial fire fighting and search and rescue works.
			SPECIFIC	L4	GENERAL AVIATION course	For general aviation supervision actions.
			SPECIFIC	L5	SPA-1 Course	For regulatory supervision and control actions related to PBN, RVSM and NAT HLA and EFB.
			SPECIFIC	L6	SPA-2 Course	For regulatory supervision and control actions related to ETOPS, LVO.
			SPECIFIC	L7	SPA-H Course	For regulatory supervision and control actions related to HEMS, HHO, NVIS, HOFO.
			SPECIFIC	L10	Course >5700 Kg	For regulatory supervision and control actions related to aircraft operators of more than 5700 Kg.
			SPECIFIC	L11	Course <5700 Kg	For regulatory supervision and control actions related to aircraft operators of less than 5700 Kg.
			SPECIFIC	L12	HELICOPTER Course	For regulatory supervision and control actions related to helicopter operators.
			SPECIFIC	Lo3	SPA-H Course	For regulatory supervision and control actions related to HEMS, HHO, NVIS, HOFO.
	Air Operator Inspection (OPS Inspector)	P00196	SPECIFIC	L1	CAT-1 + CAT-2 Course	For CAT regulatory control supervision actions.
			SPECIFIC	L2	SPO Course	For regulatory supervision and control of aerial work.
			SPECIFIC	L3	COE Course	For regulatory supervision and control actions of aerial fire fighting and search and rescue works.
			SPECIFIC	L4	GENERAL AVIATION course	For general aviation supervision actions.
			SPECIFIC	L5	SPA-1 Course	For regulatory supervision and control actions related to PBN, RVSM and NAT HLA and EFB.
			SPECIFIC	L6	SPA-2 Course	For regulatory supervision and control actions related to ETOPS, LVO.
			SPECIFIC	L7	SPA-H Course	For regulatory supervision and control actions related to HEMS, HHO, NVIS, HOFO.
			SPECIFIC	L8	SPA-DG Course	For regulatory supervision and control actions related to DG.
			SPECIFIC	L10	Course >5700 Kg	For regulatory supervision and control actions related to aircraft operators of more than 5700 Kg.
			SPECIFIC	L11	Course <5700 Kg	For regulatory supervision and control actions related to aircraft operators of less than 5700 Kg.
			SPECIFIC	L12	GLIDER Course	For regulatory supervision and control actions related to glider operators.
			SPECIFIC	L13	BALLOON Course	For regulatory supervision and control actions related to balloon operators.
			SPECIFIC	L14	HELICOPTER Course	For regulatory supervision and control actions related to helicopter operators.

Limitations for Initial Theoretical-Practical Training (OPS)

A-DSA-Q&T-01		DSA-COAA	LIMITATIONS DEFINITION			
Functional Area	Profiles	Code	Training	Acronym	Applicability	Limitaciones
AIR OPERATORS (CAT, AW & GA)	Air Operator Inspection (FOI-A)	P00198	SPECIFIC	L1	CAT-1 + CAT-2 Course	For CAT regulatory control supervision actions.
			SPECIFIC	L2	SPO Course	For regulatory supervision and control of aerial work.
			SPECIFIC	L3	COE Course	For regulatory supervision and control actions of aerial fire fighting and search and rescue works.
			SPECIFIC	L4	GENERAL AVIATION course	For general aviation supervision actions.
			SPECIFIC	L5	SPA-1 Course	For regulatory supervision and control actions related to PBN, RVSM and NAT HLA and EFB.
			SPECIFIC	L6	SPA-2 Course	For regulatory supervision and control actions related to ETOPS, LVO.
			SPECIFIC	L7	SPA-H Course	For regulatory supervision and control actions related to HEMS, HHO, NVIS, HOFO.
			SPECIFIC	L8	SPA-DG Course	For regulatory supervision and control actions related to DG.
			SPECIFIC	L10	Course >5700 Kg	For regulatory supervision and control actions related to aircraft operators of more than 5700 Kg.
			SPECIFIC	L11	Course <5700 Kg	For regulatory supervision and control actions related to aircraft operators of less than 5700 Kg.
			SPECIFIC	L12	GLIDER Course	For regulatory supervision and control actions related to glider operators.
			SPECIFIC	L13	BALLOON Course	For regulatory supervision and control actions related to balloon operators.
			SPECIFIC	L14	HELICOPTER Course	For regulatory supervision and control actions related to helicopter operators.
	Air Operator Inspection (FOI-H)	P00200	SPECIFIC	L1	CAT-1 + CAT-2 Course	For CAT regulatory control supervision actions.
			SPECIFIC	L2	SPO Course	For regulatory supervision and control of aerial work.
			SPECIFIC	L3	COE Course	For regulatory supervision and control actions of aerial fire fighting and search and rescue works.
			SPECIFIC	L4	GENERAL AVIATION course	For general aviation supervision actions.
			SPECIFIC	L5	SPA-1 Course	For regulatory supervision and control actions related to PBN, RVSM and NAT HLA and EFB.
			SPECIFIC	L6	SPA-2 Course	For regulatory supervision and control actions related to ETOPS, LVO.
			SPECIFIC	L7	SPA-H Course	For regulatory supervision and control actions related to HEMS, HHO, NVIS, HOFO.
			SPECIFIC	L8	SPA-DG Course	For regulatory supervision and control actions related to DG.
			SPECIFIC	L10	Course >5700 Kg	For regulatory supervision and control actions related to aircraft operators of more than 5700 Kg.
			SPECIFIC	L11	Course <5700 Kg	For regulatory supervision and control actions related to aircraft operators of less than 5700 Kg.
			SPECIFIC	L12	GLIDER Course	For regulatory supervision and control actions related to glider operators.
			SPECIFIC	L13	BALLOON Course	For regulatory supervision and control actions related to balloon operators.
			SPECIFIC	L14	HELICOPTER Course	For regulatory supervision and control actions related to helicopter operators.

Source: AESA. Qualification Profiles Requirements.

Courses Definition & Requirements

AIR OPERATIONS & AIRWORTHINESS DEPARTMENT COURSES				COURSE DEFINITION				
KNOWLEDGE AREA	Acronym	COURSE TITLE	CODE	Duration in Hours	Expiration of the Basic Course (Years)	Course Coordinating Unit	Restrictions (Not before)	Syllabus and Instructor Assignment Officers
AIRCRAFT GENERAL KNOWLEDGE	<5700 Kg	Familiarization with non-complex aircraft	C00702	15	12	CA	-	?
	>5700 Kg	Familiarization with Complex Aircraft	C00701	30	12	CA	-	?
	HELIC	Helicopter Familiarization	C00698	25	12	CA	-	?
	BALLOON	Balloon Familiarization	C00699	6	12	CA	-	?
	GLIDER	Glider Familiarization	C00700	6	12	CA	-	?
	ENGINES	Engine Familiarization	C00716	18	N/A	CA	-	?
HUMAN FACTORS	HH.FF-M	Human Factors in Aeronautical Maintenance	C00635	12	5	CA	P145 or CAMO	?
	HH.FF-O	Human Factors in Operation (CRM)	C00636	21	10	CSOC	OPS	?
MAINTENANCE TECHNIQUES	NDT	Non Destructive Testing	C00639	18	N/A	CA	P145	?
	FTS	Fuel Tank Safety	C00631	6	N/A	CA	P145 or CAMO	?
	PEM	Standard Aeronautical Maintenance Practices	C00640	30	N/A	CA	P145	?
AIRCRAFT MAINTENANCE	P145	Maintenance of Aircraft and Elements	C00714	24	N/A	CA	CA INT	?
	MOAP	Part145 Foreign Organizations. MOAP	C00709	12	N/A	CA	P145	?
	BASA	Bilateral agreements in Maintenance	C00710	12	N/A	CA	P145	?
	P66	Maintenance Licenses Issuance. Part 66	C00712	12	N/A	CA	-	?
	P147	Maintenance Training Organizations. Part 147	C00965	12	N/A	CA	LB, QA, IAC, P66	?
CONTINUING AIRWORTHINESS	CA INT	Introduction to Continued Airworthiness	C00966	6	N/A	CA	LB, QA	?
	CAMO	Continued airworthiness - CAMO's	C00704	24	N/A	CA	CA INT	?
	MP	Maintenance Programs	C00705	18	N/A	CA	CAMO	?
	RA-ACAM	Airworthiness Review and ACAM	C00706	18	N/A	CA	CAMO	?
RAMP INSPECTION	SAFA	Foreign Aircraft Ramp Inspection. SAFA	C00669	30	N/A	UNIRA	-	?
	SANA	National Aircraft Ramp Inspections. SANA	C00678	18	N/A	UNIRA	SAFA	?
	PSN/SF	SANA / SAFA procedure	C00670	18	N/A	UNIRA	SAFA	?
	RINP	New EASA Projects in Ramp Inspection	C01144	12	N/A	UNIRA	SAFA	?
	FCL-RAMP	FCL for Ramp Inspection	C01181	6	N/A	UNIRA	SAFA	?
	SOFTW-RAMP	Ramp Inspection Software Tools	C01182	6	N/A	UNIRA	SAFA	?
	ALCOH-RAMP	Alcohol Controls in Ramp Inspections	C01183	6	N/A	UNIRA	SAFA	?
	OFP-R	Flight and dispatch plan for Ramp Inspectors	C00968	18	N/A	UNIRA	SAFA	?
	DG-R	Dangerous Goods for Ramp Inspectors	C00690	12	N/A	UNIRA	SAFA	?

Courses Definition & Requirements

AIR OPERATIONS & AIRWORTHINESS DEPARTMENT COURSES				COURSE DEFINITION				
KNOWLEDGE AREA	Acronym	COURSE TITLE	CODE	Duration in Hours	Expiration of the Basic Course (Years)	Course Coordinating Unit	Restrictions (Not before)	Syllabus and Instructor Assignment Officers
OPS	PPL	Introduction to PPL Flight Operations	C00658	24h Theory 3h Trainee Practices	12	COA	-	?
	IFR	Introduction to IFR Instrumental Flight	C00686	15h Theory 10h Trainee Practices	12	COA	-	?
	SPA-1	Operational Approvals (PBN, RVSM, NAT HLA, EFB)	C00660	18	N/A	COA	CAT-1	?
	SPA-2	Airplane Special Approvals (LVO, ETOPS)	C00661	18	N/A	COA	SPA-1	?
	SPA-H	Helicopter Special Approvals (HEMS, HHO, NVIS, HOFO)	C00682	18	N/A	COA	SPA-1	?
	MEL	MEL approval	C00665	15	N/A	COA	-	?
	AOPS	Introduction to Air Operations and Organization Requirements	C00666	18	N/A	COA	LB, QA	?
	COES	Special Operator Certificates	C00969	12	N/A	COA	CAT-1	?
	SPO	Specialized and Non-Commercial Operations	C00970	24	N/A	COA	AOPS	?
	CAT-1	TAC Operations and Operations Training	C01159	24	N/A	COA	DG-OPS	?
	FTL	Flight Time Limits for Crews and Fatigue	C01156	9	N/A	COA		?
	CAT-2	TAC Performance and Operational Requirements	C00673	18	N/A	COA	EQUIP	?
	EQUIP	Aircraft Equipment	C00674	12	N/A	COA	AOPS	?
	AG	General Aviation (NCC / NCO, ULMs and DEMOS)	C01185	12	N/A	COA	AOPS, SERA-AUR	?
	SERA-AUR	SERA and ACAS	C01188	6	N/A	COA	AOPS	?
SUPERVISION OF AIR SERVICES AND FOREIGN OPERATORS	SPA-DG	Dangerous Goods	C00718	12	N/A	COA	CAT-2	?
	LIEX	Commercial use licenses. Regulation (EC) 1008/2008	C00944	10	5	DSSAOE	—	?
	ATEF	Finance and Economy Air Transport	C00946	18	5	DSSAOE	—	?
	COPE	Commercial permits	C00949	12	4	DSSAOE	—	?
	83 Bis	Application of Article 83 Bis of the Convention on International Civil Aviation	C01147	6	N/A	CA		?
	OOAA	Aeronautical Organizations	C01184	6	N/A	DSSAOE		?
INITIAL AIRWORTHINESS	AOAA	Administrative Aspects of Air Operators	C00951	12	5	DSSAOE	—	?
	P21	General Part 21	C00641	18	N/A	DC	N/A	?
	POA	Production Organizations, According to Part 21_POA'S	C00642	12	N/A	DC	N/A	?
	DOA	Design Organizations, According to Part 21_DOA'S	C00643	12	N/A	DC	N/A	?
	CofA	EASA Airworthiness Certification	C00644	12	N/A	DC	N/A	?
	CofA N	Certification of Airworthiness NO EASA	C00645	12	N/A	DC	N/A	?
AIRCRAFT REGISTER	TC	Type Certification	C00653	12	N/A	DC	N/A	?
	DRA	AERONAUTICAL REGISTRY LAW	C00634	4	N/A	CA	N/A	?

Source: AESA. Qualification Profiles Requirements.

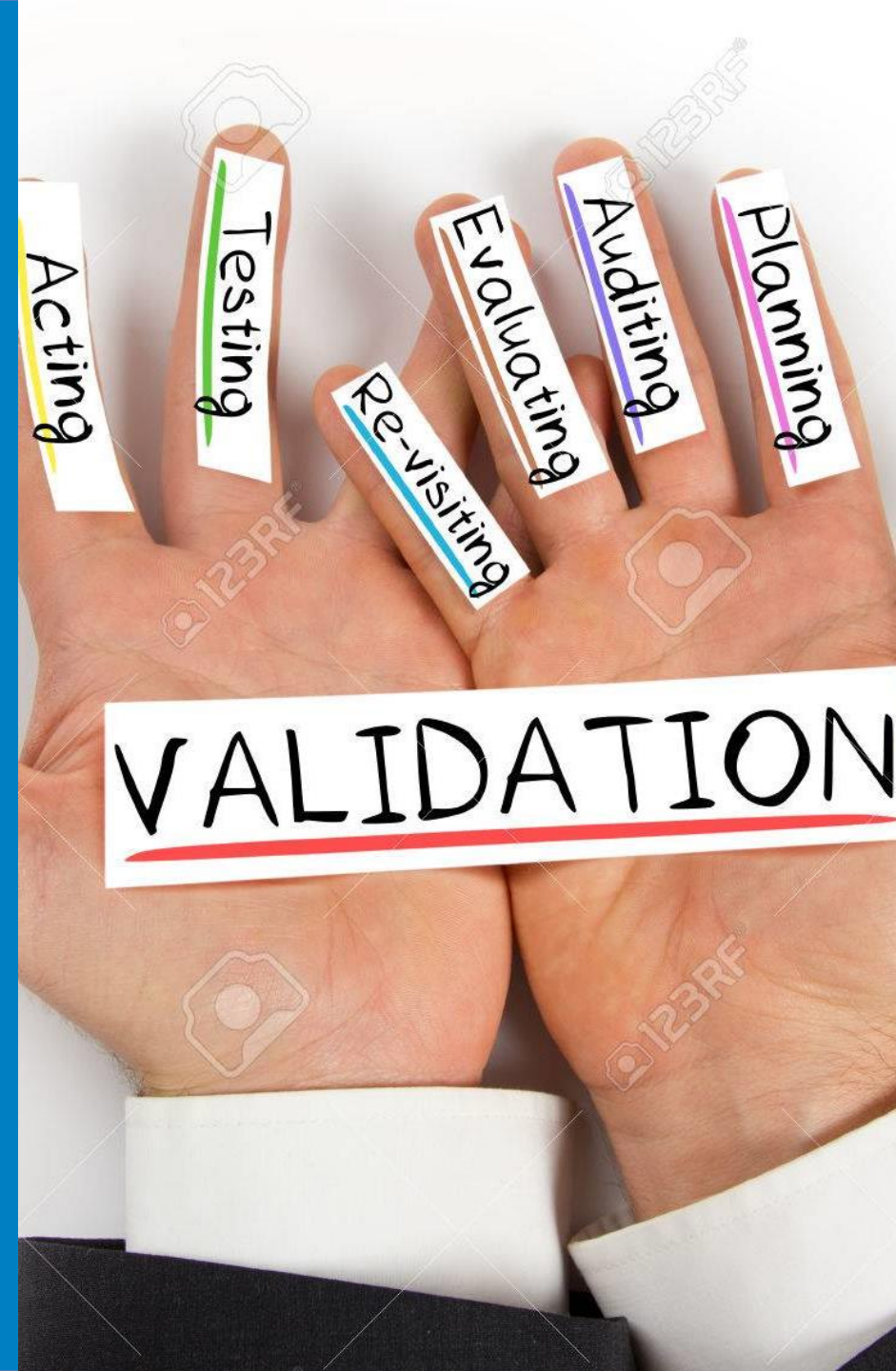
Qualification Profile. Example

CAA	QUALIFICATION CERTIFICATE	F-DEA-Q&T-02
		Edition 1.0
		CAA-X
		PS-DEA -04

[PERSONAL IDENTIFICATION]	
Position	[Indicate the job position]
Directorate	[Indicate the appropriate Directorate]
Department	[Indicate the Department to which the position belongs, if applicable]
Division	[Indicate the Division to which the position belongs, if applicable]
Unit	[Indicate the Unit to which the position belongs, if applicable]

[PROFILE DESIGNATION]		
TASK OVERALL STATUS	AUTHORISED	Valid Until: DD/MM/YYYY
Academic Training	Authorised / Not Authorised	
UNIVERSITY DEGREE / LICENSE / PROFESSIONAL QUALIFICATIONS		
Previous Experience (Requirement)	Authorised / Not Authorised	
Defined Requirement	YES/NO, ..., Flight Hours, ...	
Initial theoretical-practical training	Authorised / Not Authorised	Valid Until: DD/MM/YYYY
Course Code and Title		Expiration
COURSE CODE-COURSE TITLE		DD/MM/YYYY
COURSE CODE-COURSE TITLE		DD/MM/YYYY
COURSE CODE-COURSE TITLE		Not completed
COURSE CODE-COURSE TITLE		DD/MM/YYYY
On-The-Job Training (OJT)	Authorised / Not Authorised	
NN Actions in YY years	NN Actions performed	
Continuous Theoretical-practical training	Authorised / Not Authorised	Valid Until: DD/MM/YYYY
Course Code and Title		Expiration
COURSE CODE-COURSE TITLE		DD/MM/YYYY
COURSE CODE-COURSE TITLE		DD/MM/YYYY
COURSE CODE-COURSE TITLE		Not completed
Continuous Practical Experience	Authorised / Not Authorised	Valid Until: DD/MM/YYYY
NN Actions in YY years	NN Actions performed	

Training Validation & Temporary Authorisation



Training Validation

- CAA staff may have obtained competences and skills as a consequence of having received equivalent training or practical experience equivalent to those required in the qualification profiles.
- Or in organizations other than CAA, such as industry, which are equivalent for carrying out the associated tasks to the job position.
- In these cases, validation or temporary authorization processes may be used.



Training Validation & Temporary Authorisation

→ **Validation** is applicable for specific requirements established for a qualification profile, related to training and previous experience, and can distinguish between:

- Academic training.
- Theoretical-practical training.
- Previous experience
- OJT.



- To carry out the assessment of course validations, the following aspects will be considered as a minimum:
- Minimum duration. The minimum duration (hours) is equal to or greater.
 - Minimum or relevant content. The contents cover the relevant parts of the syllabus and objectives of the equivalent of the CAA.
 - Requirements related to the capability of the training instructor (s), which must be equally equivalent to those of CAA.

Validation Certificate - Example

CAA	VALIDATION CERTIFICATE	F-DEA-Q&T-02
		Edition 1.0
		CAA-X
		PS-DEA-04

PERSONAL IDENTIFICATION	
Position	
Department	
Functional Area	
Division	
Unit	

The purpose of this Certificate, issued in favor of **Mr. Name, Surname 1 Surname 2**, with ID Nr **NNNNNNNL**, is intended to Validate the Initial Training (Theoretical and / or Practice) and / or Initial Experience necessary to carry out the Duties and / or Tasks, identified in the "Qualification Management Procedure" **P-XXX-Q & T-01** and in its **Annexes**, for which there is no written evidence of compliance with the established requirements.

BACKGROUND ^(*)

Briefly explain the reason for issuing this Certificate.

VALIDATIONS

Given the experience and additional training provided by **Mr. Name, Surname 1, Surname 2**, it is considered, in this case, assimilable the Academic Degree Requirement provided (delete this part if not applicable) and also validation of the following Theoretical Training Initial and Initial Practical Training:

INITIAL VALIDATED THEORETICAL TRAINING is the following:

VALIDATED COURSE	JUSTIFICATION FOR VALIDATION
COURSE 1	(*)
COURSE 2	(*)
COURSE N	(*)

INITIAL PRACTICAL TRAINING VALIDATED is the following:

VALIDATED PROFILE	JUSTIFICATION FOR VALIDATION
PROFILE 1	(*)
PROFILE 2	(*)
PROFILE N	(*)

- (ONLY THE APPLICABLE PARTS WILL BE FILLED OUT, THE REST CAN BE REMOVED)
- (IN THE CASE OF USING THIS FORMAT FOR EXCEPTIONAL VALIDATIONS AS ACADEMIC DEGREE OR PROFESSIONAL LICENSE NOT COLLECTED IN THE PROCEDURES, THE PREVIOUS TABLES WILL BE ELIMINATED (if applicable) AND THE REASON SHALL BE JUSTIFIED IN DETAIL).
- THE PROPOSED TEXT MAY BE MODIFIED OR ADAPTED BUT THE INDICATED MUST BE IN ACCORDANCE WITH THE ESTABLISHED IN P-DEA-XXX-01.

(Delete this text box when it has been read)

The Head of the Unit or Superior Hierarchical Unit	
Signature & Stamp:	
Name:	Name, Surname 1, Surname 2
Date:	DD/MM/YYYY

The purpose of this Certificate, issued in favor of **Mr. Name, Surname 1 Surname 2**, with ID Nr **NNNNNNNL**, is intended to Validate the Initial Training (Theoretical and / or Practice) and / or Initial Experience necessary to carry out the Duties and / or Tasks, identified in the "Qualification Management Procedure" **P-XXX-Q & T-01** and in its **Annexes**, for which there is no written evidence of compliance with the established requirements.

BACKGROUND ^(*)

Briefly explain the reason for issuing this Certificate.

VALIDATIONS

Given the experience and additional training provided by **Mr. Name, Surname 1, Surname 2**, it is considered, in this case, assimilable the Academic Degree Requirement provided (delete this part if not applicable) and also validation of the following Theoretical Training Initial and Initial Practical Training:

Temporary Authorisation

- Temporary qualification is always associated with a qualification profile and is issued temporarily (for a specified period of time).
- A person may be temporarily enabled in a specific qualification profile, exceptionally, when:
 - It was not possible to demonstrate compliance with all the requirements associated with the profile, and
 - The person responsible for carrying out the tasks / actions considers that they can be adequately carried out by said personnel, with the corresponding limitations.
- In these cases, CAA may issue a temporary Authorization Certificate.

Temporary Authorisation

- The “temporary” validation of an Authorization of a qualification profile will not exceed two years in any case, indicating, as a minimum:
 - Qualification Profiles for which it is temporarily authorized.
 - Authorization period (maximum of 2 years).
 - Requirements established for the profile that are not met.
 - Justification based on which the authorization is issued.



Temporary Authorisation Example

CAA	CONFIDENTIAL	Department
	CERTIFICATE OF VALIDATION OF SPECIFIC KNOWLEDGE	DES-ATI
		Unit
		SEP

CERTIFICATE Issuance Date

DEPARTMENT
DIVISION
UNIT

The purpose of this Certificate, issued in favor of Mr. **SALVADOR ALEPUZ ROMAGUERA**, with ID number 52641162G, is intended to Temporarily or Indefinitely Validate the Training and Initial Experience necessary to carry out the Functions and / or Tasks, identified in the "Procedure Competition Management" **"P-DEA-COM-01 Ed./Rev. : 0/1 and in its Annexes**, for which there is no written evidence of compliance with the established requirements.

The Functions and / or Tasks for which this Certificate is issued and its Temporary nature (indicate period in years) or Indefinite are the following:

FUNCTION	TASK	T/E (*1)	Validity (*2)
AIRCRAFTS, PRODUCTS & PARTS CERTIFICATION	RESPONSIBLE FOR CERTIFICATION OF MINOR CHANGES	T	2 YEARS

Only Initial Training and / or Experience (not refreshing or recurring) and / or Tasks for which it can be credited, more than 5 years of Experience in Relevant Positions in the Administration and / or Industry, as indicated in the W Competences Management Procedure ", otherwise a maximum period of 2 years is established within which the current situation must be corrected.

(*1) T, if only Initial Training is Validated, E if only Initial Experience is Validated, TE if Initial Training and Experience is Validated.
(*2) 1 o 2 years, if the relevant Relevant Experience is not credited, UNDEFINED if the relevant Relevant Experience is credited.

The Functions and / or Tasks, identified above, may be exercised, with the following **LIMITATIONS**:

Authorization valid for 2 years from the date of signature of the document

The **CORRECTIVE MEASURES** proposed by the Head of the Unit are as follows:

Programming of training during the period of validity of this certificate.

Only Initial Training and / or Experience (not refreshing or recurring) and / or Tasks for which it can be credited, more than 5 years of Experience in Relevant Positions in the Administration and / or Industry, as indicated in the W Competences Management Procedure ", otherwise a maximum period of 2 years is established within which the current situation must be corrected.

(*1) T, if only Initial Training is Validated, E if only Initial Experience is Validated, TE if Initial Training and Experience is Validated.
(*2) 1 o 2 years, if the relevant Relevant Experience is not credited, UNDEFINED if the relevant Relevant Experience is credited.

Firma: 	
Nombre: Marta Lestau Sáenz	
Fecha: 08/10/2012	

Conclusion

Doubts ?



End of Module 7

Prioritising Training Needs

Thank you very much for your attention!

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Your safety is our mission.

An Agency of the European Union 

Integrated Training Roadmap for Inspectors Workshop

Module 8 - Training Policy – Initial and Recurrent Training

Salvador Alepuz Romaguera

Aeronautical Consultant. Airworthiness Expert

Synchronous Distance Learning – Virtual Classroom, June 22nd – 25th 2020

EU-South East Asia Aviation Partnership Project (EU-SEA APP)

*This project is funded by the European Union and implemented by
the European Union Aviation Safety Agency - EASA*

Your safety is our mission.

An Agency of the European Union 

Training Policy

→ Training targets:

- Enhance personal promotion.
- Adequate technical knowledge for each technical positions (Competence & Qualification).
- Ensure compliance with Regional Regulations and ICAO Annexes.
- Match training / technological advances / legal framework.
- Get adequate alignment with other international cultures on training & Common Training Culture on implementing the best inspection practices.
- Ensure adequate technical knowledge for staff.
- Implement the best inspection practices.
- Standardize oversight procedures.
- Optimize CAA training resources.
(analyzing individual needs)
- Improve safety through a more efficiency oversight.



Training Department

→ Key Functions:

- Knowledge areas: Implementation.
- Qualification Profiles: Implementation.
- Training Standards: Implementation.
- Training Plan: Design, management, execution, supervision.
- Technical Committee : Secretariat.

→ Other Functions:

- Staff Structure identification.
- Qualification control.
- Experience monitoring & OJT.
- Application for Qualification Profiles.

Training Department

→ Other Functions (Cont.):

- Management of Exemptions and other special situations.
- Training Plan design and management.
- Courses execution: trainers, trainees, means, evaluation.
- Certificates issuance.
- Control of qualification / assessment of the qualification status.
- Audits.
 - Qualification control.
 - Training standards implementation.
- Library & Repository.
- Records keeping.
- Warnings.
- SW monitoring.



Quality Department

- Quality Department must carry out periodically revision of adequate objectives, and ensure that Courses meets the required learning targets in the most efficient way:
 - Enhance personal promotion.
 - Improve safety thought a Qualification profiles compliance.
 - Optimize CAA training resources (analysing individual needs).
 - Improve safety through a more efficiency oversight.
 - Appropriate use of resources available: Human, facilities, budget, etc.
 - Budget Optimization.
 - External courses contract .



Initial and Recurrent Training

ICAO Doc. 10070



Initial and Recurrent Training

- CASIs go through different types of training to support the acquisition and maintenance of competencies and to learn the evolving knowledge and skills they required to perform their job.
- Different Types of Training
- **Initial Training.** Consists of:
 - Introduction.
 - Basic.
 - Specialization.
 - On-the-job training (OJT).
- **Continuation Training.** To ensure their inspectorate can effectively respond to the needs of the industry.
- **Requalification Training.** To maintain the inspector competencies and qualifications.
- **Advanced Training.** To effectively supervise the delivery of oversight programmes or lead multi-disciplinary inspection teams.

Initial Training

- CASIs should have acquired the competencies identified by the CAA necessary to perform the authorization phase duties and tasks. Initial training organization is usually as follows:
- **1. Introduction**
- Provide the trainees a common baseline of knowledge of the working environment. It generally covers the following:
 - General structure of the State's government (i.e. executive and legislative branches);
 - Role of the public service;
 - Mandate and current objectives of the CAA;
 - Internal structure and functionality of the various CAA departments;
 - Overview of ICAO's role and its Annexes; and
 - Overview of aviation law and regulations (specific to the State).



Initial Training

- 1. Introduction (Cont.)
- CASI candidates will acquire:
 - The necessary knowledge of their State government, the CAA and its rulemaking processes
 - A common reference point necessary to support the acquisition of skills and knowledge in basic and specialization training.
- At the end of this part of initial training, trainees should have an appropriate level of comprehension of the workings of the government, the CAA and the suggested topics listed above.



This will ensure that trainees share a common perspective in order to assimilate CASI-specific knowledge and skills

Initial Training

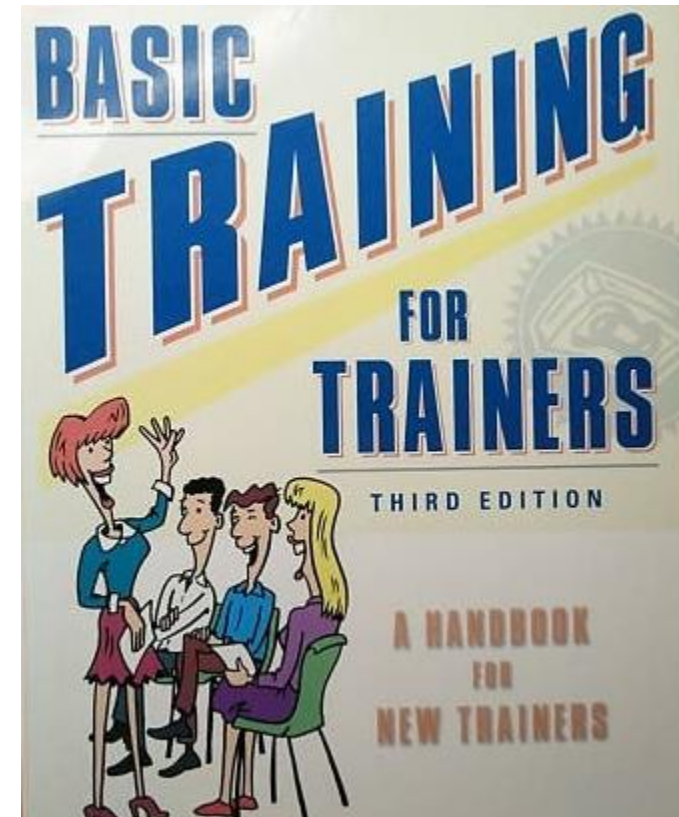
→ 2. Basic

- The basic component of initial training should be generic.
- At the end of this part, trainees should be able to understand, know and demonstrate use of a common set of principles, methodologies and service standards. It generally consists of:
 - Departmental ethics/conduct and discipline.
 - Security aspects of the CASI work.
 - The role of CASIs, their codified level of authority and degree of responsibility.
 - Overview of CAA-regulated entities and associated challenges.
 - Basics of human factors.
 - Certification and authorization policies, processes and procedures.
 - Surveillance and inspection policies, processes and procedures.

Initial Training

→ 2. Basic (Cont.)

- Audit policies, processes, and procedures.
 - Investigations and enforcement policies, processes and procedures;
 - Risk assessments.
 - State Safety Programme.
 - Safety Management Systems; and
 - Quality assurance.
- This Basic Initial Training will benefit the CAA because it will facilitate the creation of effective multi-disciplinary task forces and audit teams whenever needed.



Initial Training

→ 3. Specialisation

- Each trainee should complete the remainder of their training with colleagues that will have similar assignments (e.g. airworthiness inspector, air navigation services inspector or flight operations inspector).
- This training is directly related to the qualification profile.
- For ***example***, CASI candidates could demonstrate the knowledge and skills required to perform one or a combination of the following duties and tasks:
 - Review and approve manuals.
 - Approve training programmes, including the approval of a third-party ATO.
 - Conduct an inspection.
 - Conduct a realistic risk assessment.
 - Approve a maintenance organization.
 - Assess an SMS or a QA programme.

Initial Training

- 3. Specialisation (Cont.)
- Other topics may be addressed during specialization depending on the CASI's assignment, such as:
 - Dangerous goods,
 - Performance-based navigation, instructional systems design methodologies, or
 - Personnel licensing.
- Course designers and training providers should review the applicable job specifications to ensure that the initial training programme meets the needs of each inspector.



Initial Training

→ 4. On-the-job Training

- CAAs must institute an on-the-job training (OJT) programme for CASIs and assign experienced inspectors as guides and mentors.
- During OJT, the CAA should document and retain in the OJT trainee's file the achievement of competencies and their associated performance criteria.
- OJT results in growing levels of confidence, respect amongst colleagues and better standardization of service levels within the inspectorate.

→ Two steps:

- **Observer:** During OJT the trainee initially observes the CAsI conducting the OJT performing inspections.
- **Under supervision:** The trainee gradually becomes more active in the inspections before finally conducting inspections under supervision.

On Job Training



Learn.



Earn.



Lead.

Continuation Training

- CAAs should develop and implement a **continuing training** plan to ensure their inspectorate can effectively respond to the needs of the industry. (Particularly for rapid improvements in technology and methodologies).
- The continuation training phase encompasses refresher and recurrent training that CASIs undertake to maintain and enhance their expertise and competencies.
- Continuation training is necessary to:
 - Maintain knowledge and skills that may have been eroded since initial training, and
 - Cover additional specialized topics/changes/improvements within the industry relevant to the CASI's assigned area of responsibility.



Continuation Training

- Continuation training is necessary to:
 - Maintain knowledge and skills that may have been eroded since initial training, and
 - Cover additional specialized topics/changes/improvements within the industry relevant to the CASI's assigned area of responsibility.
- Continuous Experience is understood as the minimum inspections, audits, ...) that must be carried out to maintain the authorization of a qualification profile, as well as the maximum period of time (expressed in years) to carry them out.

Requalification Training

- CAA must establish policies regarding the maintenance of inspector competencies and qualifications.
- This policy must address extended periods of absence from the inspectorate or from performing a specific function (e.g. audits or qualification checks) along with the re-training requirements to achieve and maintain the competencies to the level required.
- In the event that authorization has been lost due to lack of Continuous Practical Experience, a supervised requalification practical experience must be accredited again before being authorized again in the Qualification Profile.
- In general, the process will be equivalent to that of OJT.



Advanced Training

- The goal of **advanced training** is to enhance the competencies of experienced CASIs so they can effectively address challenging and complex oversight issues.
- At the end of advanced training, CASI senior inspectors should be able to analyze business governance processes and procedures and accurately assess their effectiveness in ensuring the highest levels of compliance and conformity in meeting outcome goals.
- At the successful completion of advanced training, the CASI should consistently be able to recommend mitigation and remediation measures that will have a lasting positive impact upon safety levels.

Advanced Training

- Training in the following areas can support the acquisition of competencies that CASIs should demonstrate as senior inspectors:
 - Programme management.
 - Organizational cultures and change management.
 - Quality management system implementation and audit techniques.
 - Dispute resolution.
 - Root cause analysis.
 - Corrective and preventive action plans.
 - Conducting investigations and enforcement procedures.



Example of CAA Training Requirements



Academic Training & Previous Experience

- **Academic Training** are the different Official Degrees, Licenses or Professional Qualifications (AML, ATPL, TCP, ATCO, etc .), which are required of the personnel within a Qualification Profile.
- **Previous experience** refers to the practical knowledge acquired prior to the assignment of a certain qualification profile, generally in other jobs and / or organizations.



Academic Training & Previous Experience

A-DSA-Q&T-01 DSA-COAA			ACADEMIC TRAINING & PREVIOUS EXPERIENCE														
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	ACADEMIC QUALIFICATION		OTHER TRAINING												PREVIOUS PROFESSIONAL EXPERIENCE
			AE	AD	AMT	CPL(A)	AM	CPL(H)	ATPL(A)	ATPL(H)	TRI(A)	TRI(H)	FI	CCL	UD	GOS	
MAINTENANCE ORGANISATIONS	Maintenance organisation inspection	P00188	X	X	X												
AIRCRAFT MAINTENANCE TRAINING AND LICENSING	Maintenance training inspection	P00189	X	X	X												
	AML Examination	P00190	X	X	X		X										
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing airworthiness inspection	P00191	X	X	X												
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp inspection	P00192	X	X	Ls1	Ls2											For AMT & CPL(A): 2 years
	Ramp inspection Team Leader	P00288	X	X	Ls1	Ls2											For AMT & CPL(A): 2 years
	Ramp inspection Expert / Team Member	P00233	X	X	Ls1	Ls2											

AE	AERONAUTICAL ENGINEER
AD	AERONAUTICAL DEGREE
AMT	AIRCRAFT MAINTENANCE TECHNICIAN
CPL(A)	COMMERCIAL PILOT LICENSE (AEROPLANE)
CPL(H)	COMMERCIAL PILOT LICENSE (HELICOPTER)
ATPL(A)	AIRLINE TRANSPORT PILOT LICENSE (AEROPLANE)
ATPL(H)	AIRLINE TRANSPORT PILOT LICENSE (HELICOPTER)

TRI(A)	TYPE RATING INSTRUCTOR (AEROPLANE)
TRI(H)	TYPE RATING INSTRUCTOR (HELICOPTER)
FI	FLIGHT INSTRUCTOR
CCL	CABIN CREW LICENSE
UD	UNIVERSITY DEGREE
GOS	GROUND OPERATIONS SPECIALIST
AM	AERONAUTICAL MANAGER

Source: AESA. Qualification Profiles Requirements.

Academic Training & Previous Experience

A-DSA-Q&T-01 DSA-COAA			ACADEMIC TRAINING & PREVIOUS EXPERIENCE														
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	ACADEMIC QUALIFICATION		OTHER TRAINING												PREVIOUS PROFESSIONAL EXPERIENCE
			AE	AD	AMT	CPL(A)	AM	CPL(H)	ATPL(A)	ATPL(H)	TRI(A)	TRI(H)	FI	CCL	UD	GOS	
AIR OPERATORS (CAT, AW & GA)	Minimum Equipment List (MEL)	P00195	X	X			X	X							X		
	Air Operator inspection (OPS Inspector)	P00196	X	X													
	Air Operator inspection (FOI-A)	P00198					EP3		EP1								See EP1 & EP3
	Air Operator inspection (FOI-H)	P00200						EP3		EP2							See EP2 & EP3
	Air Operator inspection (Expert)	P00202	X	X										EP5	EP4	EP6	See EP4, EP5 & EP6
INITIAL AIRWORTHINESS CERTIFICATION	National CofA & Permit to Fly	P00219		X													N/A
	EASA CofA & Permit to Fly	P00220		X													N/A

AE	AERONAUTICAL ENGINEER
AD	AERONAUTICAL DEGREE
AMT	AIRCRAFT MAINTNANCE TECHNIAN
CPL(A)	COMMERCIAL PILOT LICENSE (AEROPLANE)
CPL(H)	COMMERCIAL PILOT LICENSE (HELICOPTER)
ATPL(A)	AIRLINE TRANSPORT PILOT LICENSE (AEROPLANE)
ATPL(H)	AIRLINE TRANSPORT PILOT LICENSE (HELICOPTER)

TRI(A)	TYPE RATING INSTRUCTOR (AEROPLANE)
TRI(H)	TYPE RATING INSTRUCTOR (HELICOPTER)
FI	FLIGHT INSTRUCTOR
CCL	CABIN CREW LICENSE
UD	UNIVERSITY DEGREE
GOS	GROUNG OPERATIONS SPECIALIST
AM	AERONAUTICAL MANAGER

Source: AESA. Qualification Profiles Requirements.

Initial Theoretical-Practical Training

- These are the knowledge or training actions, related to a specific qualification profile, that are considered necessary to carry out for its proper performance.
- In general they may be of 3 types:
 - Mandatory: it is strictly necessary for compliance with a certain qualification profile, and without which the Authorization will not be received.
 - Recommended: they are not strictly necessary for the qualification, but can improve the efficiency in the performance of a certain qualification profile.
 - Limiting: those that are necessary for compliance with a specific qualification profile; NO completion does not fully authorize it, but implies limitations of the qualification, in the applicable area.

Initial Theoretical-Practical Training

- For each training action (or group of knowledge) the following will be identified:
 - Minimum duration. In hours.
 - Minimum (relevant) content. Minimum index of subjects to be covered. The contents may consist of a theoretical part and a practical part with exercises. In cases where training is required by regulation, the duration and content of each of the parts shall also be clearly stated, which shall also be subject to evaluation.
 - Expiration of Theoretical-Practical Training and Refreshment Deadlines, if necessary. In years.
 - Responsible Unit and / or Responsible Person. Syllabus and, if possible, appointment of instructors / coordinators for the setting of hours.
- The duration and minimum (relevant) content defined will serve as the basis for validation of courses / training actions that have been carried out in entities other than CAA.

Initial Theoretical-Practical Training (GENERAL)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (GENERAL)																			
						CONTINUING AIRWORTHINESS COURSES												INITIAL AIRWORTHINESS COURSES				
FUNCTIONAL AREA	Qualification Profile	Code	LICENCES	LANG.	QUALITY	GENERAL AIRCRAFT KNOWLEDGE						HH.RR		MAINTENANCE TECHNIQUES			CERTIFICATION					
			FCL	ENGLISH	QS	<5700KG	>5700KG	HELIC	BALLOON	GLIDER	ENGINES	HH.FF-M	HH.FF-O	NDT	FTS	MSP	P21	POA	DOA	CofA	CofA N	TC
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188		Lm1		L	L	L	L	L	R	M		M	M	M						
AIRCRAFT MAINTENANCE TRAINING & LICENCES	Maintenance Training Inspection	P00189				L	L	L	L	L		M			L1	L1						
	AML Examinations	P00190				R	R	R	R	R		R				R						
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191				L	L	L	L	L	R	M			M	R				R		
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	R	M		L	L	L				R	R			R						
	Ramp Inspection Team Leader	P00288	R			L	L	L														
	Ramp Inspection Expert	P00233	R	M		L	L	L				R	R			R						
AIR OPRATORS (CAT, AW & GA)	Minimum Equipment List	P00195		R		L10	L11	L12														
	Air Operator Inspector (OPS Inspector)	P00196	M	R		L10	L11	L12	L13	L14			M									
	Air Operator Inspection (FOI-A)	P00198	M	R		L10	L11	L12	L13	L14			M									
	Air Operator Inspection (FOI-H)	P00200	M	R		L10	L11	L12	L13	L14			M									
	Air Operator Inspection (Expert)	P00202	M	R		L10	L11	L12	L13	L14			M									
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219				M	R	R	R	R		R		R	R	R	R			M	M	
	EASA CofA & Permit to Fly	P00220				M	R	R	R	R		R		R	R	R	M			M		

Initial Theoretical-Practical Training (SPECIFIC)

A-DSA-Q&T-01 DSA-COAA			INITIAL THEORETICAL-PRACTICAL TRAINING (SPECIFIC)																								
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	AIRCRAFT MAINTENANCE					CONTINUING AIRWORTHINESS				AIR. REG	RAMP INSPECTION									AERIAL SERVICES					
			P145	MOAP	BASA	P66	P147	CA-INT.	CAMO	MP	RA-ACAM	DRA	SAFA	SANA	PSN/SF	OPF-R	RINP	SOFT-RAMP	ALCOH-RAMP	FCL-RAMP	DG- R	83 Bis	LIEX	ATEF	COPE	OOAA	AOAA
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188	M	Lm2	M	M	M	M	R																		
AIRCRAFT MAINTENANCE TRAINING & LICENCES	Maintenance Training Inspection	P00189	R			M	M	M																			
	AML Examinations	P00190				M	R																				
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191	R					M	M	M	M																
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	R		R				R	R	R		M	Ls3	M	Ls4	M			Ls5	R						
	Ramp Inspection Team Leader	P00288											R	R	M	R	R	M	R	R							
	Ramp Inspection Expert	P00233	R		R				R	R	R		M	Ls3	M	Ls4	M			Ls5	R						
AIR OPRATORS (CAT, AW & GA)	Minimum Equipment List	P00195																									
	Air Operator Inspector (OPS Inspector)	P00196																									
	Air Operator Inspection (FOI-A)	P00198																									
	Air Operator Inspection (FOI-H)	P00200																									
	Air Operator Inspection (Expert)	P00202																									
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219																									
	EASA CofA & Permit to Fly	P00220							R	R	R																

Initial Theoretical-Practical Training (SPECIFIC)

A-DSA-Q&T-01 DSA-COAA		INITIAL THEORETICAL-PRACTICAL TRAINING (SPECIFIC)																
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	OPERATIONS															
			PPL	IFR	AG	SERA-AUR	SPA-1	SPA-2	SPA-H	MEL	AOPS	COES	SPO	CAT-1	FTL	CAT-2	EQUIP	SPA DG
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188																
AIRCRAFT MAINTENANCE TRAINING & LICENCES	Maintenance Training Inspection	P00189																
	AML Examinations	P00190																
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191	R				Lo1	Lo2	Lo3	R	R						M	
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	R	R						R	R	R	R	R	R	R	R	
	Ramp Inspection Team Leader	P00288															R	
	Ramp Inspection Expert	P00233	R	R						R	R	R	R	R	R	R	R	
AIR OPERATORS (CAT, AW & GA)	Minimum Equipment List	P00195					L5	L6	L7	O	M	L3	L2		M		M	
	Air Operator Inspector (OPS Inspector)	P00196	M	R	L4	M	L5	L6	L7	R	M	L3	L2	L1	M	L1	M	L8
	Air Operator Inspection (FOI-A)	P00198			L4	M	L5	L6	L7	R	M	L3	L2	L1	M	L1	M	L8
	Air Operator Inspection (FOI-H)	P00200			L4	M	L5	L6	L7	R	M			L1	M	L1		L8
	Air Operator Inspection (Expert)	P00202			L4	R	L5	L6	L7	R	M	L3	L2	L1	R	L1	R	L8
INITIAL AIRWORTHINESS CERTIFICATION	Non EASA CofA & Permit to Fly	P00219	R															
	EASA CofA & Permit to Fly	P00220	R															

Courses Definition & Requirements

AIR OPERATIONS & AIRWORTHINESS DEPARTMENT COURSES				COURSE DEFINITION				
KNOWLEDGE AREA	Acronym	COURSE TITLE	CODE	Duration in Hours	Expiration of the Basic Course (Years)	Course Coordinating Unit	Restrictions (Not before)	Syllabus and Instructor Assignment Officers
AIRCRAFT GENERAL KNOWLEDGE	<5700 Kg	Familiarization with non-complex aircraft	C00702	15	12	CA	-	?
	>5700 Kg	Familiarization with Complex Aircraft	C00701	30	12	CA	-	?
	HELIC	Helicopter Familiarization	C00698	25	12	CA	-	?
	BALLOON	Balloon Familiarization	C00699	6	12	CA	-	?
	GLIDER	Glider Familiarization	C00700	6	12	CA	-	?
	ENGINES	Engine Familiarization	C00716	18	N/A	CA	-	?
HUMAN FACTORS	HH.FF-M	Human Factors in Aeronautical Maintenance	C00635	12	5	CA	P145 or CAMO	?
	HH.FF-O	Human Factors in Operation (CRM)	C00636	21	10	CSOC	OPS	?
MAINTENANCE TECHNIQUES	NDT	Non Destructive Testing	C00639	18	N/A	CA	P145	?
	FTS	Fuel Tank Safety	C00631	6	N/A	CA	P145 or CAMO	?
	PEM	Standard Aeronautical Maintenance Practices	C00640	30	N/A	CA	P145	?
AIRCRAFT MAINTENANCE	P145	Maintenance of Aircraft and Elements	C00714	24	N/A	CA	CA INT	?
	MOAP	Part145 Foreign Organizations. MOAP	C00709	12	N/A	CA	P145	?
	BASA	Bilateral agreements in Maintenance	C00710	12	N/A	CA	P145	?
	P66	Maintenance Licenses Issuance. Part 66	C00712	12	N/A	CA	-	?
	P147	Maintenance Training Organizations. Part 147	C00965	12	N/A	CA	LB, QA, IAC, P66	?
CONTINUING AIRWORTHINESS	CA INT	Introduction to Continued Airworthiness	C00966	6	N/A	CA	LB, QA	?
	CAMO	Continued airworthiness - CAMO`s	C00704	24	N/A	CA	CA INT	?
	MP	Maintenance Programs	C00705	18	N/A	CA	CAMO	?
	RA-ACAM	Airworthiness Review and ACAM	C00706	18	N/A	CA	CAMO	?
RAMP INSPECTION	SAFA	Foreign Aircraft Ramp Inspection. SAFA	C00669	30	N/A	UNIRA	-	?
	SANA	National Aircraft Ramp Inspections. SANA	C00678	18	N/A	UNIRA	SAFA	?
	PSN/SF	SANA / SAFA procedure	C00670	18	N/A	UNIRA	SAFA	?
	RINP	New EASA Projects in Ramp Inspection	C01144	12	N/A	UNIRA	SAFA	?
	FCL-RAMP	FCL for Ramp Inspection	C01181	6	N/A	UNIRA	SAFA	?
	SOFTW-RAMP	Ramp Inspection Software Tools	C01182	6	N/A	UNIRA	SAFA	?
	ALCOH-RAMP	Alcohol Controls in Ramp Inspections	C01183	6	N/A	UNIRA	SAFA	?
	OFP-R	Flight and dispatch plan for Ramp Inspectors	C00968	18	N/A	UNIRA	SAFA	?
	DG-R	Dangerous Goods for Ramp Inspectors	C00690	12	N/A	UNIRA	SAFA	?

Source: AESA. Qualification Profiles Requirements.

Courses Definition & Requirements

AIR OPERATIONS & AIRWORTHINESS DEPARTMENT COURSES				COURSE DEFINITION				
KNOWLEDGE AREA	Acronym	COURSE TITLE	CODE	Duration in Hours	Expiration of the Basic Course (Years)	Course Coordinating Unit	Restrictions (Not before)	Syllabus and Instructor Assignment
OPS	PPL	Introduction to PPL Flight Operations	C00658	24h Theory 3h Trainee Practices	12	COA	-	?
	IFR	Introduction to IFR Instrumental Flight	C00686	15h Theory 10h Trainee Practices	12	COA	-	?
	SPA-1	Operational Approvals (PBN, RVSM, NAT HLA, EFB)	C00660	18	N/A	COA	CAT-1	?
	SPA-2	Airplane Special Approvals (LVO, ETOPS)	C00661	18	N/A	COA	SPA-1	?
	SPA-H	Helicopter Special Approvals (HEMS, HHO, NVIS, HOFO)	C00682	18	N/A	COA	SPA-1	?
	MEL	MEL approval	C00665	15	N/A	COA	-	?
	AOPS	Introduction to Air Operations and Organization Requirements	C00666	18	N/A	COA	LB, QA	?
	COES	Special Operator Certificates	C00969	12	N/A	COA	CAT-1	?
	SPO	Specialized and Non-Commercial Operations	C00970	24	N/A	COA	AOPS	?
	CAT-1	TAC Operations and Operations Training	C01159	24	N/A	COA	DG-OPS	?
	FTL	Flight Time Limits for Crews and Fatigue	C01156	9	N/A	COA		?
	CAT-2	TAC Performance and Operational Requirements	C00673	18	N/A	COA	EQUIP	?
	EQUIP	Aircraft Equipment	C00674	12	N/A	COA	AOPS	?
	AG	General Aviation (NCC / NCO, ULMs and DEMOS)	C01185	12	N/A	COA	AOPS, SERA-AUR	?
	SERA-AUR	SERA and ACAS	C01188	6	N/A	COA	AOPS	?
	SPA-DG	Dangerous Goods	C00718	12	N/A	COA	CAT-2	?
SUPERVISION OF AIR SERVICES AND FOREIGN OPERATORS	LIEX	Commercial use licenses. Regulation (EC) 1008/2008	C00944	10	5	DSSAOE	-	?
	ATEF	Finance and Economy Air Transport	C00946	18	5	DSSAOE	-	?
	COPE	Commercial permits	C00949	12	4	DSSAOE	-	?
	83 Bis	Application of Article 83 Bis of the Convention on International Civil Aviation	C01147	6	N/A	CA		?
	OAAA	Aeronautical Organizations	C01184	6	N/A	DSSAOE		?
	AOAA	Administrative Aspects of Air Operators	C00951	12	5	DSSAOE	-	?
INITIAL AIRWORTHINESS	P21	General Part 21	C00641	18	N/A	DC	N/A	?
	POA	Production Organizations, According to Part 21_POA'S	C00642	12	N/A	DC	N/A	?
	DOA	Design Organizations, According to Part 21_DOA'S	C00643	12	N/A	DC	N/A	?
	CofA	EASA Airworthiness Certification	C00644	12	N/A	DC	N/A	?
	CofA N	Certification of Airworthiness NO EASA	C00645	12	N/A	DC	N/A	?
AIRCRAFT REGISTER	TC	Type Certification	C00653	12	N/A	DC	N/A	?
	DRA	AERONAUTICAL REGISTRY LAW	C00634	4	N/A	CA	N/A	?

Source: AESA. Qualification Profiles Requirements.

On-The-Job Training

- Qualification phase in which the training personnel take part in real actions (inspections, audits, ...) in a real work environment, related to a certain qualification profile that are considered necessary to carry out.
- Participation levels:
 - Observer: When the performance is limited to seeing how another qualified person performs a task.
 - Under supervision: When the training personnel independently carry out the task or some of its activities but always supervised by another person who is qualified and with supervisory capacity.
- For the qualification profiles it is defined:
 - Practical Training at Work (OJT),
 - Continuous Practical Experience, and
 - Supervised Practical Experience for Re-qualification.



On-The-Job Training

A-DSA-Q&T-01 DSA-COAA			PRACTICAL TRAINING- OJT & MAINTENANCE OF COMPETENCES						
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	Previous Experience	Initial Practical Training (OJT)			Continuous Practical Experience		Re-Qualification
				Period (In years)	Minimum Actions as Observer	Min. Actions Under Supervision	Period (in years)	Minimum Actions	Minimum Actions
MAINTENANCE ORGANISATION	Maintenance Organisation Inspection	P00188	1 Y (Lm3)	N/A	2	1	2	4	1
AIRCRAFT MAINTENANCE LICENSING & TRAINING	Maintenance Training Inspection	P00189	1 AÑO	N/A	2	1	2	4	1
	AML Examination	P00190	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191	1 Y (Lc1) (Lc2)	N/A	2	1	2	4	1
SAFA/SANA RAMP INSPECTION	SAFA/SANA Ramp Inspection	P00192	1 Y	6 months	6	6	1	12	(*2)
	Ramp Inspection Team Leader	P00288	1 Y	6 months	2	2	1	12	(*2)
	Ramp Inspection EXPERT	P00233	3 Y	3 Y	-	72 (*1)	1	24	(*2)
BUSINESS SUPERVISION OF AIRLINES	Commercial Permit	P00106	N/A	3 months	2	5	N/A	N/A	N/A
	Financial and Economic Supervision of Air Transport	P00108	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Aeronautical Organizations and Operating Licenses	P00289	N/A	3 months	2	5	N/A	N/A	N/A
	Aircraft Leasing	P00235	N/A	3 months	2	5	N/A	N/A	N/A
AIR OPERATORS (CAT, AW y GA)	Minimum Equipment List	P00195	1 Y	N/A	2	1	2	4	1
	Air Operator Inspection (OPS Inspector)	P00196	1 Y	N/A	2	1	2	4	1
	Air Operator Inspection (FOI-A)	P00198	N/A	N/A	2	1	2	4	1
	Air Operator Inspection (FOI-H)	P00200	N/A	N/A	2	1	2	4	1
	Air Operator Inspection (Expert)	P00202	N/A	N/A	2	1	2	4	1

Source: AESA. Qualification Profiles Requirements.

(*1) All 72 actions are not required to be supervised.

(*2) See A-DSM-SAFA-01 (revisión in force).

On-The-Job Training

A-DSA-Q&T-01 DSA-COAA			PRACTICAL TRAINING- OJT & MAINTENANCE OF COMPETENCES						
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	Previous Experience	Initial Practical Training (OJT)			Continuous Practical Experience		Re-Qualification
				Period (In years)	Minimum. Actions as Observer	Min. Actions Under Supervision	Period (in years)	Minimum Actions	Minimum Actions
AIRCRAFT REGISTER	AR Technical Supervision	P00131	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	AR Administrative Suppor	P00132	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AIRCRAFT, PRODUCT & PARTS CERTIFICATION	Responsible for EASA Certification	P00214	N/A	3	6	N/A	2	2	1
	Responsible For Non EASA Certification	P00215	N/A	1	2	N/A	2	2	1
	EASA Certification Specialist	P00216	N/A	5	10	N/A	2	2	1
	Non EASA Certification Specialist	P00217	N/A	1	2	N/A	2	2	1
INITIAL AIRWORTHINESS CERTIFICATION	CofA & Pewrmit to Fly Non EASA	P00219	N/A	1	2	N/A	2	4	1
	CofA & Pewrmit to Fly EASA	P00220	N/A	1	2	N/A	2	4	1
PRODUCTION ORGANISATION	Team Leader POA / Suparte F	P00221	N/A	2	4	4	2	4	1
	POA Team Member / Subpart F	P00222	N/A	1	4	N/A	2	4	1
	POA Coordinator	P00223	N/A	5	5	N/A	2	2	1
DESIGN ORGANISATION	DOA Team Coordinator	P00042	N/A	2	2	2	2	2	1
	DOA Team Member	P00043	N/A	1	2	N/A	2	2	1

Source: AESA. Qualification Profiles Requirements.

On-The-Job Training (Limitations)

A-DSA-Q&T-01 DSA-COAA		LIMITATIONS DEFINITION				
Functional Area	Profiles	Code	Training where limitation is applied	Acronym	Application subject	Limitations
MAINTENANCE ORGANISATIONS	Maintenance Organisation inspection	P00188	OJT & COMP. MAINTEN. EXP	Lm3	Min. 5 years of Previous Experience	Except for Foreign Part 145 Organisations
CONTINUING AIRWORTHINESS MANAGEMENT	Continuing Airworthiness Inspection	P00191	OJT & COMP. MAINTEN. EXP	Lc1	Min. 5 years of Previous Experience	Except for aeroplane & helicopter AR
			OJT & COMP. MAINTEN. EXP	Lc2	Min. 3 years of Previous Experience	Except for balloon & glider RA

Source: AESA. Qualification Profiles Requirements.

Continuous Theoretical-Practical Training

- Continuous theoretical-practical training is understood as the refreshing or updating of the initial theoretical-practical training, which will be carried out:
 - At defined regular intervals or,
 - When changes in requirements make it necessary to keep your knowledge up to date.
- This continuous theoretical-practical training will contain, at least, all changes in legislation, practices or in the aeronautical industry that affect the corresponding profile.
- The theoretical-practical continuous training may correspond to:
 - Courses: Consistent in the repetition of the initial training action (with the relevant updates), when an expiration has been defined for the initial training knowledge or actions.
 - Refreshment Seminars. Consisting of a knowledge update. It may be linked to knowledge or initial training actions, when a refresh period has been established; or it may be linked to one or more complete Qualification Profiles.

Continuous Theoretical-Practical training

A-DSA-Q&T-01 DSA-COAA			Refreshment Training Definition associated with Profiles						
FUNCTIONAL AREA	QUALIFICATION PROFILE	Code	Refreshmet Training Designation	Code	Acronym	Refreshmet Period	Type of Training	Horurs	CAA Unit in charge
MAINTENANCE ORGANISATIONS	Maintenance Organization Inspection	P00188	Refreshment Profile Inspection of Maintenance Organizations	C00994	RE-MTO	Annual	L	6	CA
AIRCRAFT MAINTENANCE TRAINING & LICENSING	Maintenance Training Inspection	P00189	Refreshment Profile Maintenance Training Inspection	C00995	RE-TMA	Annual	L	6	CA
	AML exams	P00190	Refreshment Profile AML Exams	C00996	RE-EXLMA	Annual	L	6	CA
CONTINUING AIRWORTHINESS MANAGEMENT	Continuous Airworthiness Inspection	P00191	Refreshment Profile Continuous Airworthiness Inspection	C00997	RE-AC	Annual	L	6	CA
SAFA/SANA RAMP INSPECTION	SAFA / SANA Ramp Inspection	P00192	Refreshment Profile Ramp Inspection SAFA / SANA	C00998	RE-SAFA	Annual	L	6	UNIRA
	Ramp Inspection Team Leader	P00288	–	–	–	–			UNIRA
	Ramp Inspection EXPERT	P00233	–	–	–	–			UNIRA
AIR OPERATORS (CAT, AW & GA)	Minimum Equipment Lists	P00195	Profile Refreshment of Minimum Team List	C01001	RE-MEL	Annual	L	6	SMEL
	Air Operators Inspection (OPS Inspector)	P00196	Profile Refreshment of Air Operators Inspection (OPS Inspector)	C01002	RE-IOPS	Annual	L	6	COA
	Air Operators Inspection (FOI-A)	P00198	Profile Refreshment of Air Operators Inspection (FOI-A)	C01003	RE-FOI-A	Annual	L	6	COA
	Air Operators Inspection (FOI-H)	P00200	Profile Refreshment of Air Operators Inspection (FOI-H)	C01004	RE-FOI-H	Annual	L	6	COA
	Air Operators Inspection (Expert)	P00202	Profile Refreshment of Air Operators Inspection (Expert)	C01005	RE-Exp	Annual	L	6	COA
INITIAL AIRWORTHINESS CERTIFICATION	CofA & Permit to Fly No EASA	P00219	Profile Refreshment of Initial AirworthinessnCertification	C01027	RE-CERINI	Annual	L	6	DC
	CofA & Permit to Fly EASA	P00220							
	POA/Supart F Team Leader	P00221	Profile Refreshment of POA & DOA Organisations	C01028	RE-ORGPD	Annual	L	6	DC
	Team Member POA/Subpart F	P00222							
	POA Coordinator	P00223							
	DOA Team Coordinator	P00042							
	DOA Team Member	P00043							

- Refreshment trainings may consist, among other training actions, of **standardization meetings**.
- Attendance at such Meetings will be valid to complete the profile refresh requirements.

Periodic Assessment of Competence

- Some profiles may include periodic assessment of competencies:
 - Professional, or
 - Behavioral requirements, such as:
 - The real understanding of new knowledge.
 - Performance during tasks / actions carried out.
 - Communication skills.
 - Assertiveness.
 - Teamwork ability , etc.
- In order to maintain a qualification profile as authorized on the qualification certificate, the applicant must have successfully passed a competence assessment in the last 3 years.



OJT Record - Example

CAA	CONFIDENTIAL	***** DES-ATI
	-OJT- EXPERIENCE RECORD AUTHORIZATION OF STAFF WITH DEFINED QUALIFICATION PROFILE	*** SEP
INSPECTOR STAFF:		
DEPARTMENT:	AIRCRAFT SAFETY DEPARTMENT	
DIVISION/UNIT:	FLIGHT SAFETY REGIONAL OFFICE # --	

This record is complemented by the Qualification Certificate (L-DEA-COM-09) for the purpose of demonstrating compliance with the qualification requirements associated with the tasks assigned, according to the Qualification Management Procedure (P-DEA-Q & T-01).

The attached document to this form shows the tables with the functions and tasks where the tasks entrusted to the Flight Safety Regional Offices are included, with the code corresponding to each task. This is the code that must appear on the experience registration form to define the corresponding task.

To complete this record consider the following:

- (1) **INSPECTION AREA, TASK CODE:** Indicate the task code that is identified in the attached tables.
- (2) **TRACEABILITY:** Indicate the reference of the documents that show traceability to the evidence of the inspection.
- (3) **INSPECTION DATE:** Indicate the date of the action (DD/MM/YYYY).
- (4) **ROL:** The role developed in the performance by the interested party must be pointed out: as an observer or under supervision or as maintenance of competence.
- (5) **SIGNATURE:** Indicate, under the signature: Name and Surname of the Inspection Supervisor. In case of inspection as an observer and under supervision, the Supervisor must sign. In case of maintenance of the competence, the interested party can sign.



Inspection Area (1)	Traceability (2)	Action completion date (3)	Rol (4)	Supervisor signature / Applicant signature (5)
Task code	Action reference	DD / MM / YYYY	As: Observer Under supervision For qualification maintenance	
1			OBSERVER ☐	
			UNDER SUPERVISION ☐	
			QUALIFICATION MTCE. ☐	Surname Name:
2			OBSERVER ☐	
			UNDER SUPERVISION ☐	
			QUALIFICATION MTCE. ☐	Surname Name:
3			OBSERVER ☐	
			UNDER SUPERVISION ☐	
			QUALIFICATION MTCE. ☐	Surname Name:
4			OBSERVER ☐	
			UNDER SUPERVISION ☐	
			QUALIFICATION MTCE. ☐	Surname Name:
5			OBSERVER ☐	
			UNDER SUPERVISION ☐	
			QUALIFICATION MTCE. ☐	Surname Name:
6			OBSERVER ☐	
			UNDER SUPERVISION ☐	
			QUALIFICATION MTCE. ☐	Surname Name:
7			OBSERVER ☐	
			UNDER SUPERVISION ☐	
			QUALIFICATION MTCE. ☐	Surname Name:

This record is complemented by the Qualification Certificate (L-DEA-COM-09) for the purpose of demonstrating compliance with the qualification requirements associated with the tasks assigned, according to the Qualification Management Procedure (P-DEA-Q & T-01).

The attached document to this form shows the tables with the functions and tasks where the tasks entrusted to the Flight Safety Regional Offices are included, with the code corresponding to each task. This is the code that must appear on the experience registration form to define the corresponding task.

To complete this record consider the following:

- (1) **INSPECTION AREA, TASK CODE:** Indicate the task code that is identified in the attached tables.
- (2) **TRACEABILITY:** Indicate the reference of the documents that show traceability to the evidence of the inspection.
- (3) **INSPECTION DATE:** Indicate the date of the action (DD/MM/YYYY).
- (4) **ROL:** The role developed in the performance by the interested party must be pointed out: as an observer or under supervision or as maintenance of competence.
- (5) **SIGNATURE:** Indicate, under the signature: Name and Surname of the Inspection Supervisor. In case of inspection as an observer and under supervision, the Supervisor must sign. In case of maintenance of the competence, the interested party can sign.

OJT Certificate Example

CAA	CONFIDENTIAL		Department
	OJT COMPLETION CERTIFICATE (According to AGA-ANS Department Procedure)		DES-ATI
			Unit
			SEP

1. DATA FROM THE INSPECTOR SUBMITTED TO ASSESSMENT

Name:	Mr. John Perez
Division/Unit:	DIA-DSANA
Activity Area:	AIRPORTS & AERODROMOS FOR PUBLIC USE

2. DATA FROM INSPECTIONS IN PRACTICES
Attach the assessment reports, according to section 8 of the procedure.

3. REQUIREMENTS ASSESSMENTS (Tick with an "X" if "YES")
In view of previous reports:

Knowledge of the technical standard applicable to that inspection	X
Knowledge of the DSANA inspection regulations and general and specific procedures in this regard.	X
Proper application of audit techniques	X
Proper skills in writing Non-Conformities	X
Behavioral competencies (defined in the "Behavioral Competencies Definition Manual" DOAN-10-MAN-02-1-Q):	
Teamwork (D)	X
Communication (C)	X
Auto-analytical thought (C)	X
Self-confidence (C)	X
Remarks:	

4. HEAD OF DIVISION/UNIT DATA, DATE AND SIGNATURE
In view of the reports referred to in section 3, Mr. John Perez has successfully completed on-the-job training and obtained the qualification of inspector in the field of aerodrome inspection activity.

Name	Position	Date
LUIS GONZALEZ	HAD OF AIRPORT INSPECTION DIVISION	25-01-201



3. REQUIREMENTS ASSESSMENTS (Tick with an "X" if "YES")

In view of previous reports:

Knowledge of the technical standard applicable to that inspection	X
Knowledge of the DSANA inspection regulations and general and specific procedures in this regard.	X
Proper application of audit techniques	X
Proper skills in writing Non-Conformities	X
Behavioral competencies (defined in the "Behavioral Competencies Definition Manual" DOAN-10-MAN-02-1-Q):	
Teamwork (D)	X
Communication (C)	X
Auto-analytical thought (C)	X
Self-confidence (C)	X
Remarks:	

4. HEAD OF DIVISION/UNIT DATA, DATE AND SIGNATURE

In view of the reports referred to in section 3, Mr. John Perez has successfully completed on-the-job training and obtained the qualification of inspector in the field of aerodrome inspection activity.

Conclusion

Doubts ?



End of Module 8

Training Policy – Initial and Recurrent Training

Thank you very much for your attention!

Integrated Training Roadmap for Inspectors Workshop

Module 9 - Establishing an Inspector Training Program

Salvador Alepuz Romaguera

Aeronautical Consultant. Airworthiness Expert

Synchronous Distance Learning – Virtual Classroom, June 22nd – 25th 2020

EU-South East Asia Aviation Partnership Project (EU-SEA APP)

*This project is funded by the European Union and implemented by
the European Union Aviation Safety Agency - EASA*

Your safety is our mission.

An Agency of the European Union 

Inspector Training Plan

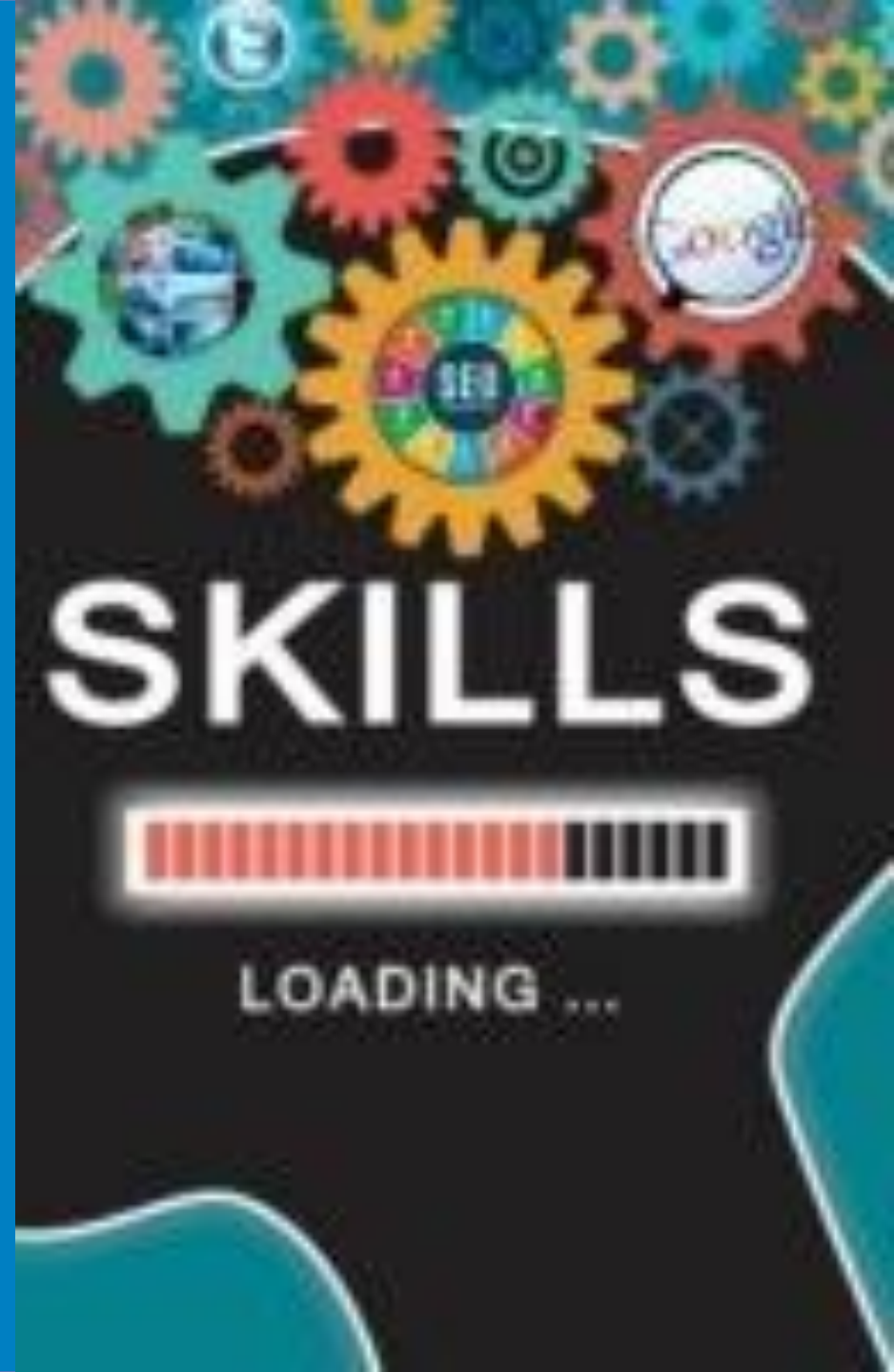
- The CAA Training Management Procedure is structured in the following blocks:
 - 1. Preparation of the Annual Training Plan.
 - 2. Implementation of the Annual Training Plan.
 - 3. Follow-up of the Annual Training Plan.
- Every year CAA should prepare and approve a training plan identifying the training actions to be carried out by its staff, depending on the needs coming from the management of the qualification.
- These training actions are aimed at satisfying the requirements established in the international regulations of ICAO, EASA, etc., as well as in the national legal system.
- However, in the Annual Training Plan, other complementary training not defined in the qualification profiles can be implemented, but necessary to complete the training received by CAA staff, including, for example, non-technical language training. or advanced technical courses.

Inspector Training Plan

- The CAA is subject to the instructions established by international organizations such as ICAO, EASA, FAA, etc. in terms of staff qualification, and must develop management and training procedures appropriate to each job position.
- This module describes the workflow that must be carried out in CAA to ensure compliance with the training requirements derived from the qualification profiles.



CAA Procedure to Develop an Annual Training Plan



Annual Training Plan

- **Summary:**
- Annual Training Plan
 - Elaboration of the annual training plan
 - Documents that make up the annual training plan
 - Implementation of the annual training plan
 - Follow-up and review of the annual training plan
- Management of Training Actions
 - Students to whom the training is directed
 - Attendance to training actions
 - Training material

Annual Training Plan

- The training actions planned to be carried out during the year are identified in the Annual Training Plan, including:
 - Those necessary to comply with the technical qualification profiles, and
 - Those actions of complementary and / or advanced training necessary, not necessarily defined in the qualification profiles.
- **Preparation of the Annual Training Plan**
 - The Plan is prepared according to the following procedure:
- **1. Identification of Training Needs.**
 - At the end of each year, the Department in charge of Training in the CAA will request the different Directorates / Divisions / Units to review and update, where appropriate, the definition documents and assignment of qualification profiles that correspond to them.
 - The different Departments / Divisions / Units will also be asked to forecast external courses, as well as their expected costs for the following year.

Annual Training Plan

- **2. Annual Training Plan Draft.**
- With the information provided, the Training Department will prepare a Draft Annual Training Plan, in which:
 - Proposed training actions are set out,
 - Data for training actions are to be established, such as:
 - The number of calls,
 - Resources for the training action: Internal or external,
 - The estimated budget, or
 - the instructors / coordinators planned for each internal course.
- The draft Training Plan is distributed to the different Departments / Divisions / Units at the end of the previous year for evaluation, and may propose the inclusion or exclusion of any training action, instructor or coordinator, as well as external training actions that they deem necessary and / or modify your budget.
- In the event of not receiving comments within the established term, your agreement will be understood.

Annual Training Plan

- **3. Consolidation and approval of the Annual Training Plan.**
- Once the comments (if any) have been received from the different Divisions / Divisions / Units, the Training Department (TD) will prepare the consolidated Training Plan that will be presented to the CAA Management Committee in January of the current year for approval. final.

Annual Training Plan

- **3. Consolidation and approval of the Annual Training Plan. (Cont.)**
- Once the possible modifications proposed by the CAA Steering Committee have been incorporated, the signature of the Training Plan by the CAA Director is admitted to be no later than January 30 of the year of implementation, supposing as long as the annual budgets approved for CAA are not violated:
 - The approval and justification of the needs,
 - Budgets, and
 - Nomination of the instructors / coordinators.
- The TD will proceed to communicate the approval of the training plan through publication on the intranet and email sent to the entire CAA.

Documents of the Annual Training Plan

- The **Annual Training Plan** is made up of the following documents:
- **1. Summary document of the annual training plan:**
 - Internal training budget summary: Overall and by Departments / Divisions / Units.
 - External training budget summary: Overall and by Departments / Divisions / Units.
 - Balance of implementation of the Training Plan from the previous year.
- **2. An annex for each Departments / Divisions / Units:**
 - Budget summary.
 - Detailed budget of the training actions proposed by each Departments / Divisions / Units to comply with the qualification needs, containing:
 - Code of the course / day.
 - Name of the course / day.
 - Number of trainees "mandatories", "limitations" and "recommended".
 - Duration, in hours.
 - Modality (on-site course, semi-virtual or on-line).
 - Whether or not it is mandatory for qualification.
 - Target group
 - Name of the instructors and / or coordinators proposed.
 - Cost (instructors, coordinators, practices and external).

Documents of the Annual Training Plan

- 3. An annex of implementation of the training plan of the previous year:
 - Overall Implementation Summary.
 - Summary of execution by Directorates.
 - Objectives achieved / not achieved.
 - Quality commitments.
 - Number of authorizations and validations made. Evaluations of the training carried out.
 - Follow-up of collaboration agreements.
- 4. An external training budget annex:
 - Budget summary.
 - Detailed budget of the training actions proposed by each Department / Division / Unit to comply with the qualification needs and for complementary training.



Annual Training Plan Implementation

- 1. Programming of Training Actions:
- The programming of the training actions included in the Annual Training Plan will be carried out by the TD in coordination with the Departments / Divisions / Units (D / D / U), after its approval.
- The priority in the programming of training actions will be the following:
 - 1. Mandatory or Limiting Training.
 - 2. Recommended Training.
 - 3. Another type of training.
- It is recommended to give priority to internal training with own resources.
- The organization of training actions will be justifiable when:
 - At least 1 CAA student has said mandatory or limiting training, or
 - when there are at least 5 requests for CAA personnel.

Call for Trainees

- The TD will make the call for mandatory / limiting training for students with a minimum time in advance, attending to the dates exposed in the qualification profile, informing of dates, schedule and place of realization.
- The selection of trainees to a training action should be prioritized according to the following order:
 - Those who have the training identified as mandatory in the qualification profile;
 - Those who have identified the training as limiting,
 - Those who have identified the training as recommended, and
 - CAA staff who wish to assist for professional development or others.



Follow-up and Review of the Annual Training Plan

- The follow-up of the implementation of the Training Plan is recommended to be carried out monthly through:
 - Monthly implementation reports.
 - Quality indicators.
- In the event of significant deviations from what is planned, the CAA Director will be informed to take the appropriate measures.
- The TD will publish an Annual Implementation Report at the beginning of the following year.
- It is possible to carry out a general review and / or a re-planning of the Training Plan throughout the year in which the D / D / U may propose the modifications they consider to the TD.

Follow-up and Review of the Annual Training Plan

→ 1. Training Feedback

- At the end of each training action, the TD will distribute a Training Action Assessment Survey that is voluntary and anonymous.
- The overall results will be made available to all CAA, and the results will be sent to the Instructors / Coordinators, in addition to the TD chief and the Content Coordinator.
- These evaluations of training actions contribute to improving the quality of training in CAA, providing useful information on content, instructors and facilities.



Follow-up and Review of the Annual Training Plan

- 2. Evaluation Of The Effectiveness Of Complementary Training
- The results of these evaluations will help to improve the quality of the training actions offered by the agency to all its employees and detect possible additional training needs.
- The objectives of this evaluation are:
 - Verify the learning of the knowledge and skills developed in the corresponding training actions.
 - Measure the impact of each training action on the daily performance of the participants.
 - Determine the impact that the set of training actions has on the competence and professional development of the staff.



Management of Training Actions

- A Training Action is each physical execution of a course / seminar and must comply with the objectives, minimum duration and minimum (relevant) contents defined for it in the Syllabus of the course included in the CAA Technical Training Catalog.
- When additional specific needs arise, and are not included in the Training Plan, these will be treated depending on their nature. The training actions can be of the following types:
 - 1. Internal Training Actions. These include actions of the following two types:
 - 1.1.-Actions included in the approved Annual Training Plan, which are executed without modifications, with the approved budget and trainers approved by it, resulting in mandatory attendance when it is stated in the profile assigned to the staff.
 - 1.2.-Actions not included in the approved Annual Training Plan or with modifications to what is was approved.



Management of Training Actions

- 2. External Training Actions. They can be of the following types:
 - 2.1. Actions carried out by other State agencies.
 - 2.2 Actions to be carried out by a company with which it has established a mutual collaboration agreement.
 - 2.3. Actions contracted to an external organization, differentiating between:
 - Continued actions or large amounts, such as language courses or internal promotion.
 - Training actions of lesser amount (minor contracts), and for specific training for which the CAA does not have trained instructors or with sufficient time to carry it out.
- **Students to whom training is directed:**
 - The training actions organized in CAA are open to all personnel, internal and external, except those that for legal reasons are not possible (for example, AVSEC courses}, and
 - Students from other state entities may also attend, depending on availability.
- CAA personnel have the duty to know the qualification profiles assigned to them and ensure compliance with the requirements indicated therein.

Management of Training Actions

→ Assistance to Training Actions:

- Attendance at training actions is mandatory for personnel who have identified it as mandatory (or limiting) training in their qualification profile.
- The absence should be justified by your hierarchical superior at least 7 days in advance.
- TD can avoid the attendance of those who have not been called.
- The minimum acceptable attendance in classroom courses of more than 6 hours, for the issuance of the Certificate of Attendance, will be 70%. For training actions that last less than or equal to 6 hours, the minimum assistance to take advantage of it is 100%.
- In the case of e-learning courses, the student who attends by videoconference must connect to the session a minimum of 70% of the duration of the training action.

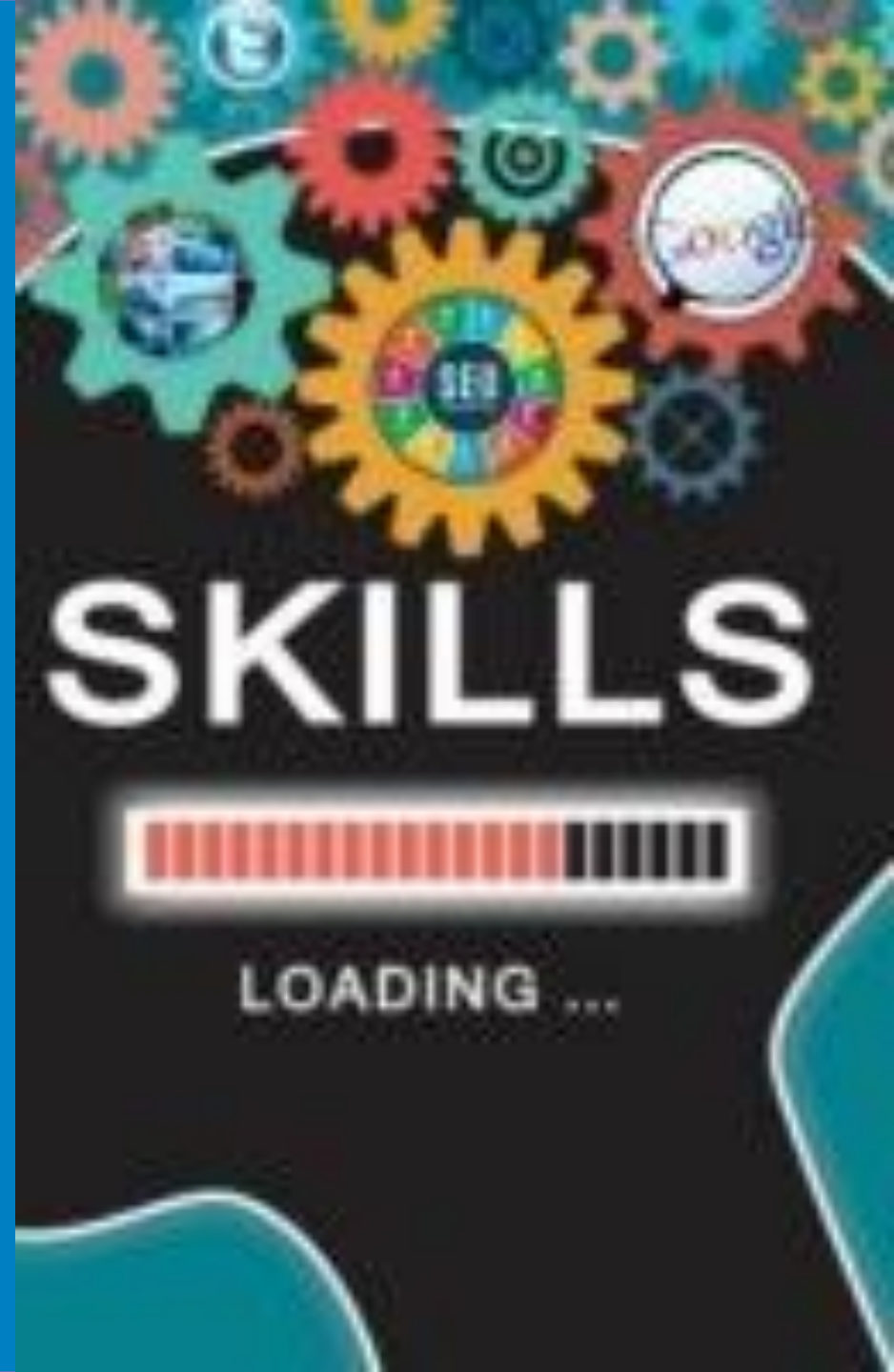
Management of Training Actions

→Teaching Material:

- In general, the TD will deliver the training material to the trainees in electronic format through the CAA Intranet.
- The TD through the CAA intranet will provide timely information on other relevant information, such as forms, catalogs, technical documentation, etc.

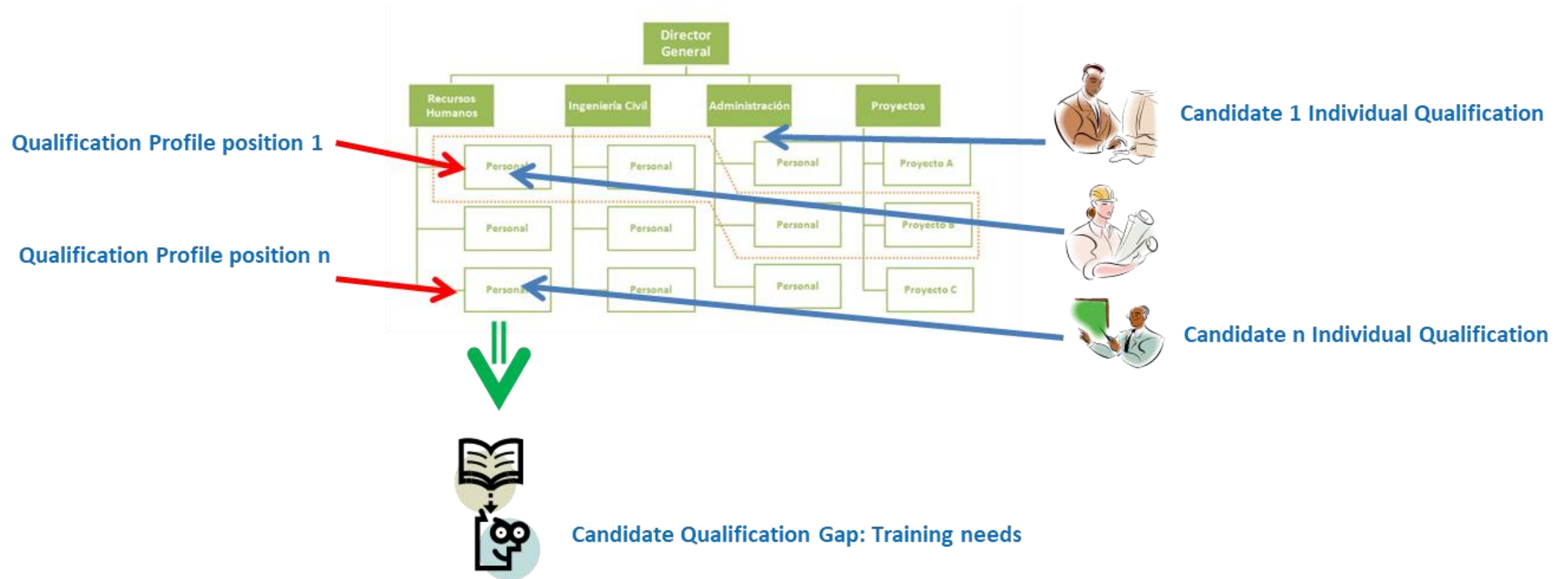


Course Design



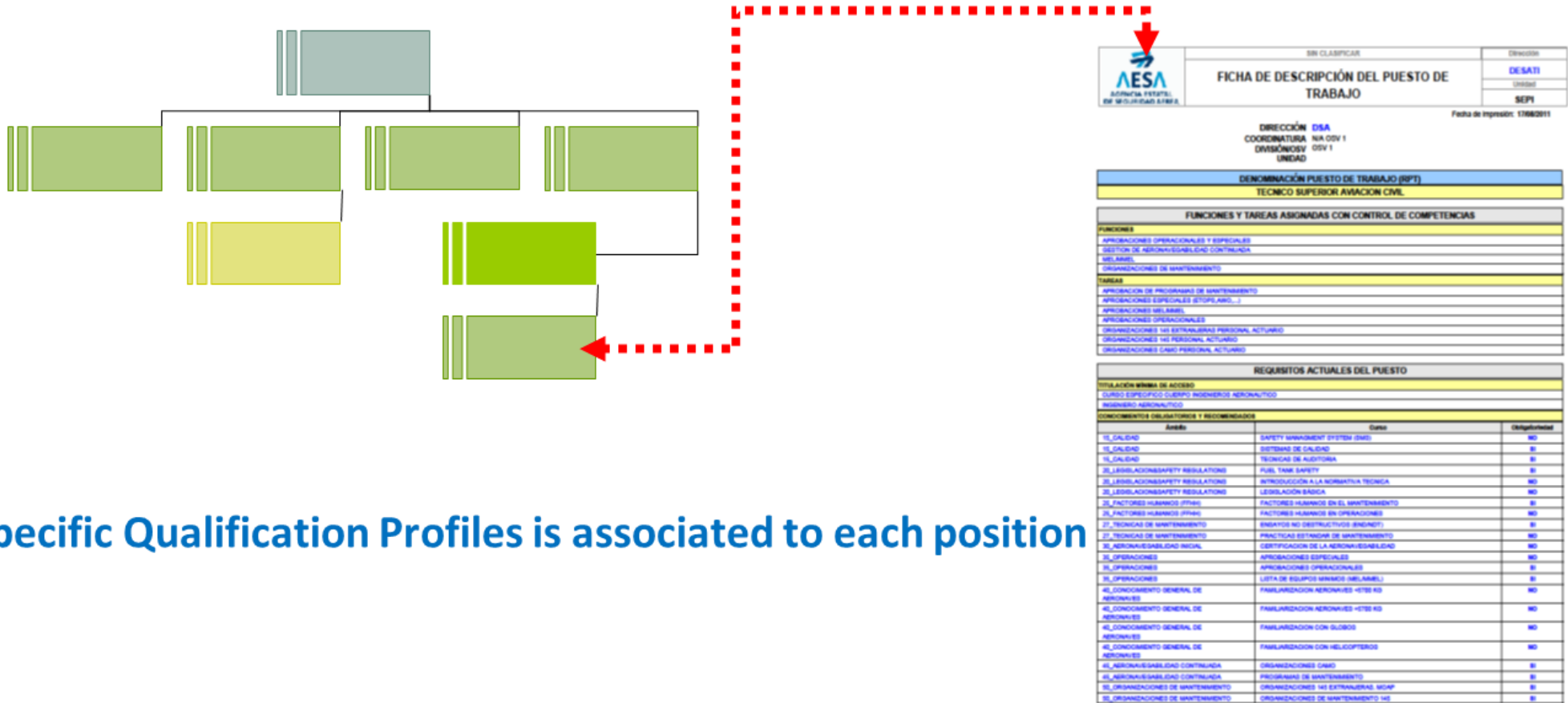
How to design the training plan?

→ Matching Candidate Profile versus Qualification Position



How to design the training plan?

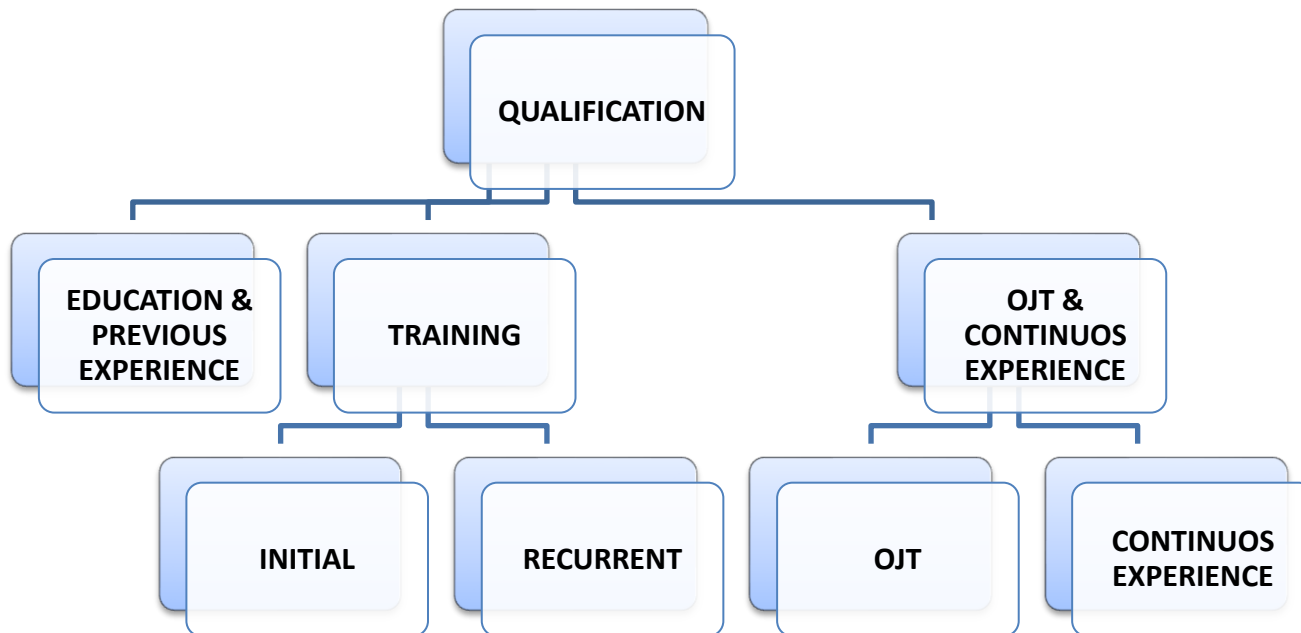
→ Position - Qualification Data Sheet



Specific Qualification Profiles is associated to each position

How to design the training plan?

→ Candidate Profile



→ Knowledge

- Initial training
- Recurrent training

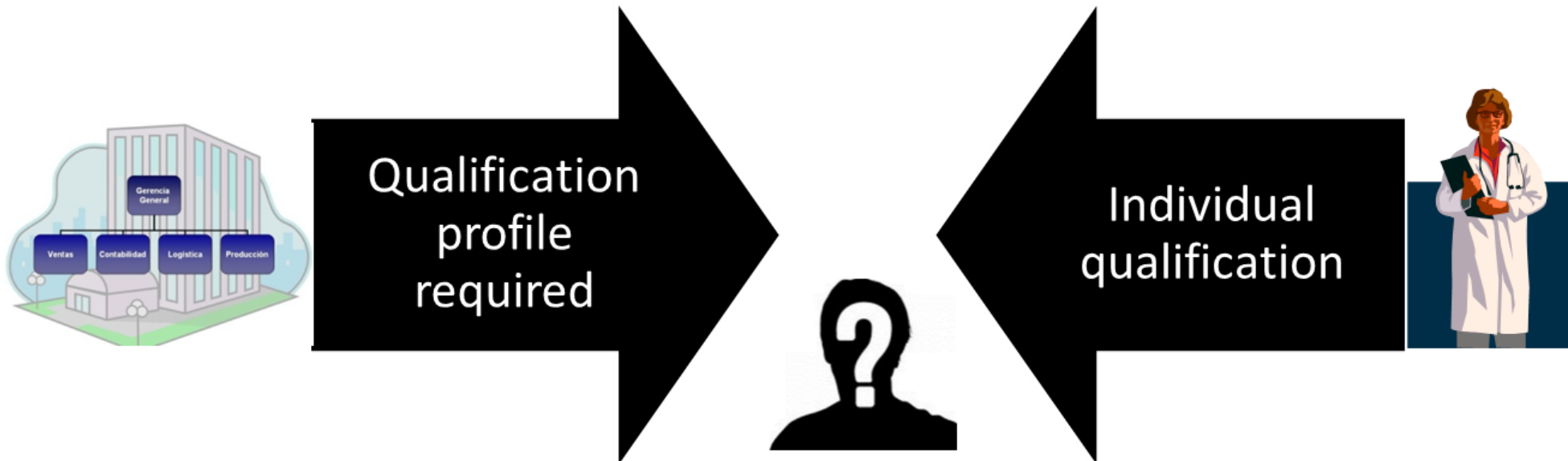
→ Experience

- On the job training,
- Continuous experience

→ Others

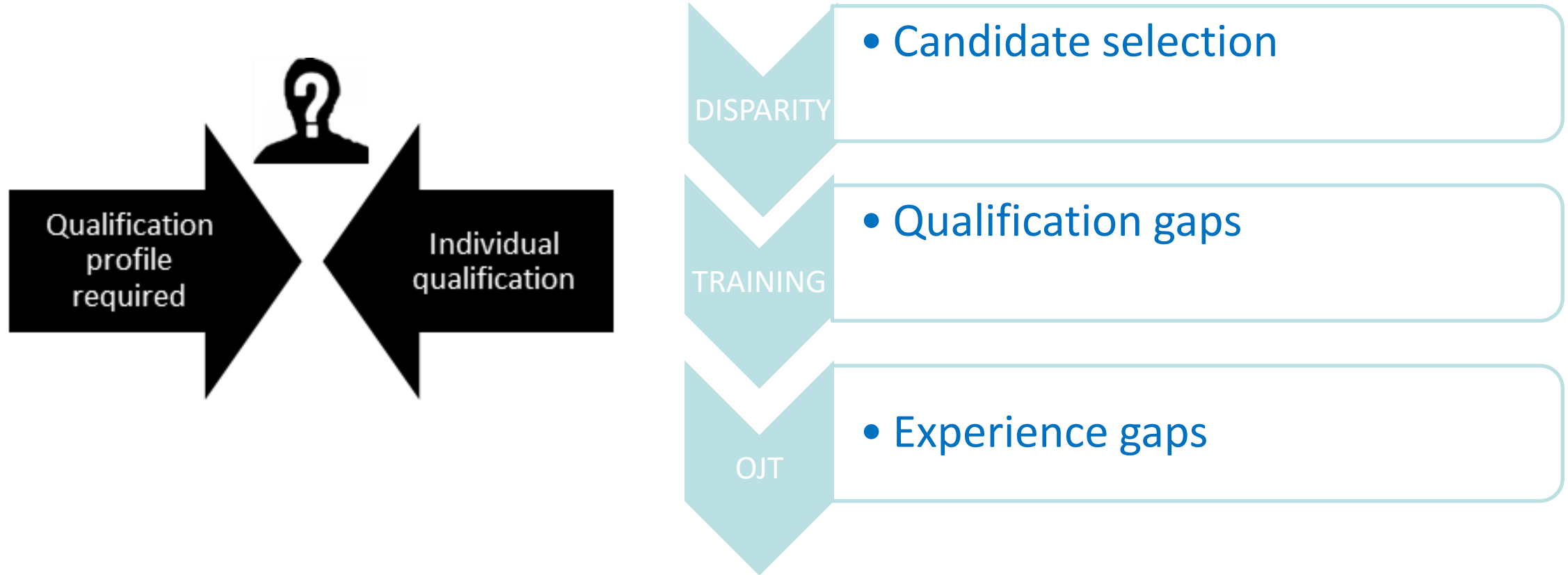
How to design the training plan?

- Qualification Profiles required to each staff position.
- Training Department compares the individual qualification profile of every candidate with the profile required by the specific position.
 - ☐ Academic or Professional Qualification
 - ☐ Training in Aviation
 - ☐ CV identifying previous experience in aviation



How to design the training plan?

→ Candidate Profile



→ Plan Identifies collective lacks in knowledge, and programs corrective actions and schedules training for each profile.

How to design the training plan?

Training Department

- Schedules corrective actions for each inspector.
 - Courses
 - OJT
- Aggregates all needed activities in one annual Training Plan.



How to design the training plan?

Training Plan will consist of a proposal of:

- Courses to be delivered:
 - Course designer
 - Trainer designation
 - Trainees (mandatory, limiting or recommended)
 - Facilities
 - Days
 - Material and documents
 - Training provider: Internal or external
- Maximum number of students per training activity (to be defined and configurable according to the type of course)
- Number of students and number of courses.

How to design the training plan?

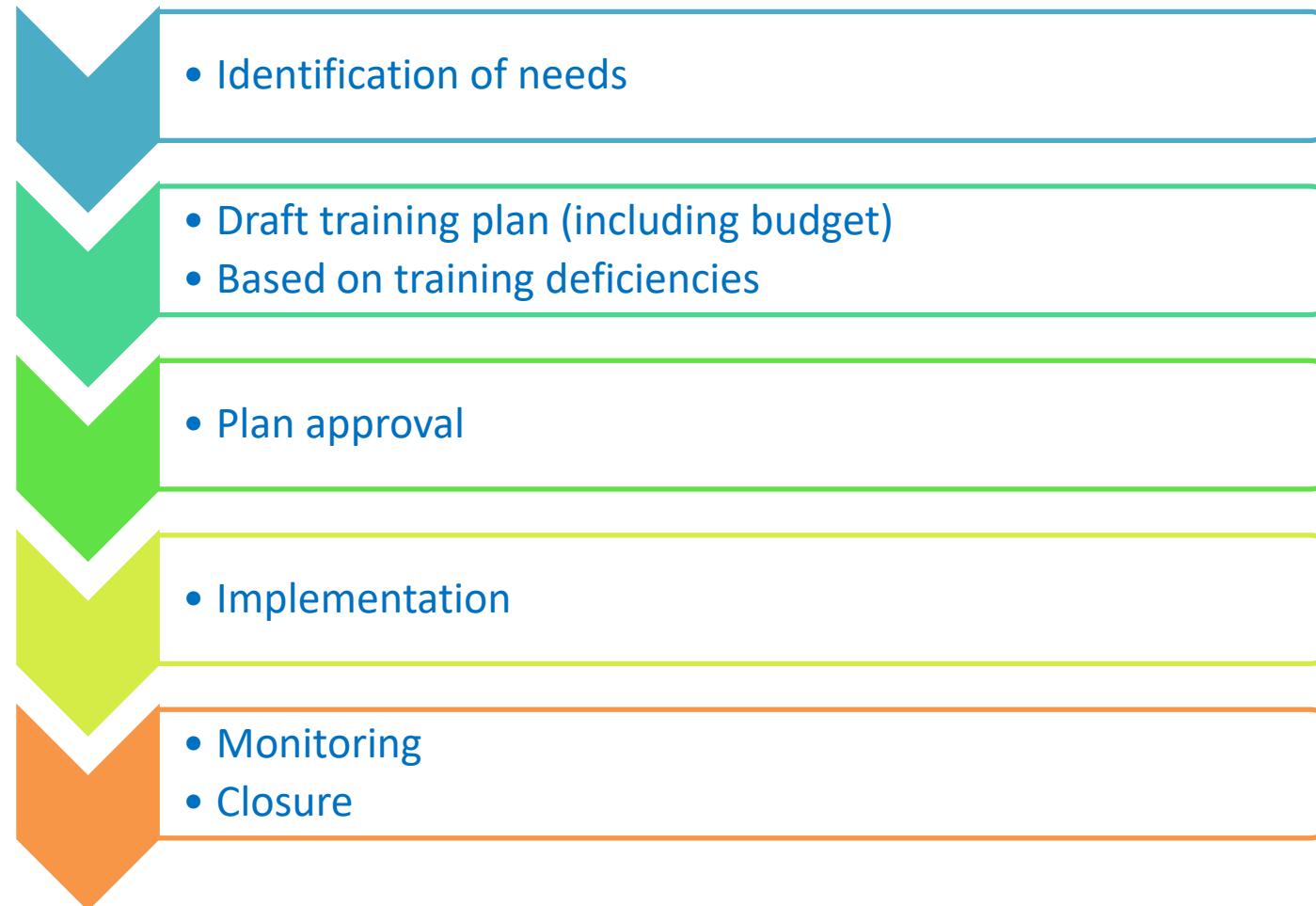
Formal Training Plan will contain:

- Plan Schedule (accounting year).
- Internal or external courses to be contracted.
- Annual Schedule (organizational needs, trainers availability, contracts).
- Budget Approval.
- Documentation:
 - Justification
 - Catalog
 - Budget
- Execution.



How to design the training plan?

Life cycle for annual Training Plans:



How to design the training plan?

Plan execution:

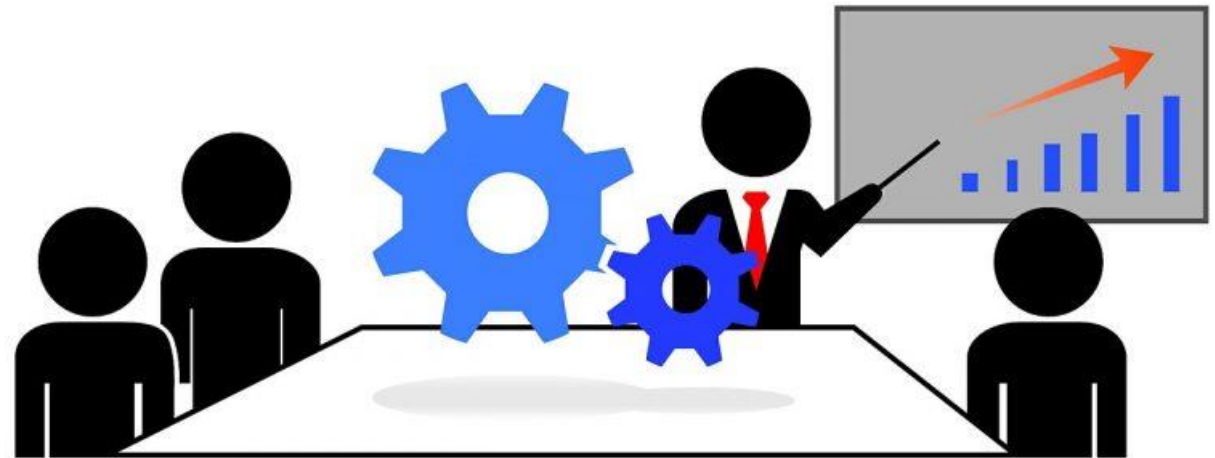
- Global adjustment.
- Course structure.
- Previous actions:
 - Budget
 - Call for students
- Responsibilities.
- Trainers.
- External courses.
- Approval.
- Implementation.
- External Organizations collaboration & mutual assistance.



How to design a training/course?

The course objectives must be:

- Specific.
- Measurable.
- Attainable.
- Relevant.
- Limited in time.



How to design a training/course?

How to identify course objectives?

- The **Specific** criteria describes as precisely as possible the desired skills of the trainee after the training. It is about having a tool that actually measures what we want to measure.

Measurable Objectives

- Enumerate
- Identification
- Explain

Non measurable Objectives

- Speak
- Understand
- Study

How to design a training/course?

How to identify course objectives?

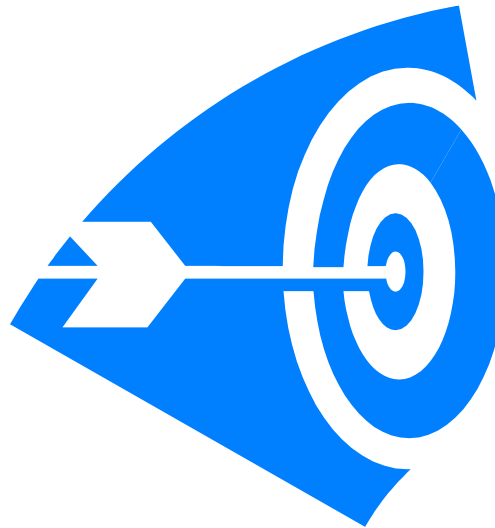
- **Measurable.** Learning objectives designed in order to enable an unambiguous decision as to whether the trainee's skills matches the desired skills or not.
- In other words, this part is about deciding objectively who fails and who passes.



How to design a training/course?

How to identify course objectives?

- **Attainable.** Target actually can be reached.
- If trainees get the impression that they do not have the resources to reach a target because they consider it overly difficult, they may not even start trying.



How to design a training/course?

How to identify course objectives?

- **Relevant.** Consider relevant and beneficial for the entity's outcome.
- For well-trained and highly qualified employees it is very frustrating if they are required to spend resources on tasks they consider to be irrelevant for the entity's success.



How to design a training/course?

How to identify course objectives?

- **Limited in time.** learning objectives shall be associated with deadlines. It means delivering deadlines for task performance.
- In connection with the attainable part, the challenge is to come up with deadlines that motivate people to get going, but that do not overwhelm them or see them resign.



How to design a training/course?

How to identify course objectives?

Two types of Objectives:

→ Performance-based.

Performance-based objectives are used to set measurable, reasonable standards that describe the **desired performance** of the student.

→ Decision-based.

Decision-based objectives are designed specifically to develop pilot judgment and aeronautical **decision-making** skills.

Dynamic and meaningful scenarios to make informed, safe, and timely decisions.

How to design a training/course?

Course coherence

- Objectives
- Contents
- Methodology
- Structure
- Evaluation



How to design a training/course?

Course characteristics (to describe it)

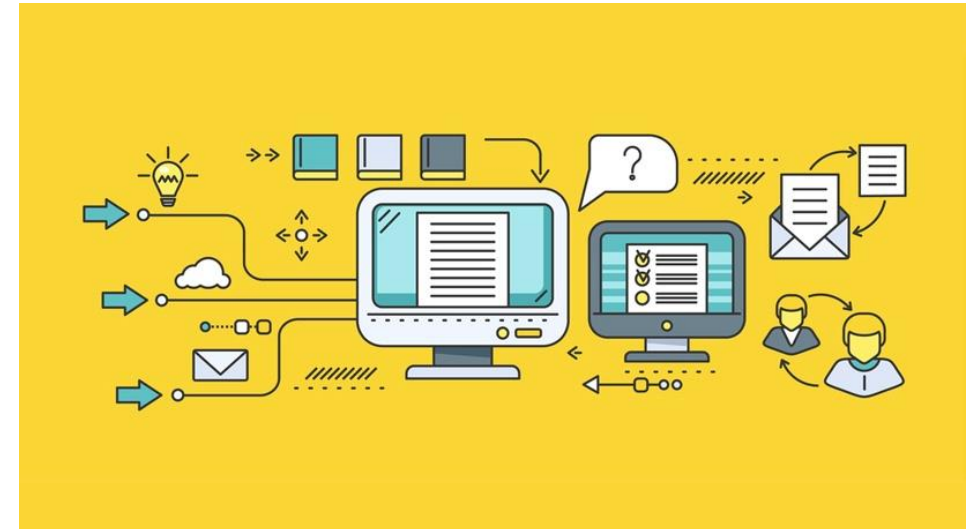
- Nature.
 - Initial Courses Includes knowledge that must be covered to fulfill the Qualification profile. Covering main topics needed.
 - Continuous/Recurrent Course. Some fields of knowledge need update every x years, or have expiry dates. This may require repeating a course every x years, months, days or a combination of both of them.
 - Structure
 - Material and documents
 - Theory , practices, visits
 - Type (on-site or on-line)
 - Quantity of hours
 - Refreshing time in between
 - Course path
- 
- An illustration of a person with dark hair, wearing a green shirt and black pants, sitting on a black office chair at a white desk. They are facing a large computer monitor that displays a white screen with various blue icons. The background is a solid blue wall. Several white icons are floating in the air, connected to the central monitor by white lines. These icons include a bar chart, a television, a cloud, a mail envelope, a document with a magnifying glass, a document with a pencil, a document with a checkmark, and a document with a lightbulb. The overall style is a clean, modern, flat design.



How to design a training/course?

Course characteristics (to manage it)

- Date and time of starting and ending.
- Instructors.
- Coordinator: in the case of having various instructors, one of them can (shall) be the coordinator of the course.
- Attendees.
- Training Center: Place of the course.
- Vacancies.
- Code.



How to design a training/course?

Course characteristics (to manage it) (cont.)

- Exams / Test: the program shall be able to control the exams. records, with a minimum result.
- Attendance control.
- Diplomas/certificates for the attendees.
 - Accessible for interested people
 - For the organization. Qualification compliance
- Quality control. Questionnaire from the attendants.

AESA AGENCIA ESTATAL DE SEGURIDAD AEREA		SIN CLASIFICAR		Dirección DESAT Unidad SEPI	
CARACTERÍSTICAS DEL CURSO					
Fecha de impresión: 31/05/2011					
C240004		FAMILIARIZACIÓN CON GLOBOS			
MATERIA		40. CONOCIMIENTO GENERAL DE AERONAVES			
DURACIÓN (horas)		12,0 h			
CADUCIDAD CURSO (años)		10 años		PERIODO REFRESCOS (años)	
FUNCIONES RELACIONADAS		ORGANIZACIONES DE MANTENIMIENTO * LEGISLACIÓN DE MANTENIMIENTO DE AERONAVES * ORGANIZACIONES FORMACIÓN MANTENIMIENTO * GESTIÓN DE AERONAVES/SEGURIDAD CONTINGUA * CERTIFICACIÓN AERONAVES, PRODUCTOS PARTE * CERTIFICACIÓN MANTENIMIENTO/REPARACIÓN			
OBJETIVO					
Formar al personal, con atribuciones de Inspección/Supervisión, en el conocimiento general de los Globos, sus Sistemas, así como las Técnicas de Reparación y Mantenimiento.					
CONTENIDO (SÍLABUS)					
1.- INTRODUCCIÓN, DESCRIPCIÓN GENERAL Globos Modernos. Performances y manejo.					
2.- AEROSTACIÓN. Aerostación Profesional. Aerostación Deportiva. Fabricantes.					
3.- MARCO LEGAL. Globos, AESA y EASA. Comparativa con otros Estados. Situación a Corto Plazo.					
4.- LA AERONAVE. Bases de Certificación de Globos y Dirigibles de Aire Caliente. Ensayos en Vuelo. Descripción General de la Aeronave. Limitaciones de Vuelo. Inspecciones Programadas.					
5.- MANTENIMIENTO, NAVEGACIÓN E INSPECCIONES. Mantenimiento. Reparaciones. Inspecciones.					
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How to design a training/course?

Course documentation

- Annexes and other minor document called by the main document.
- The system must allow the possibility to include hierarchical or functional relationships between documents.
- Traceability, through general to auxiliary documents as annexes, should be ensured.



How to design a training/course?

Course documentation (cont.)

- Courses documentation must be submitted to Documentation Control
- Modifications should be recorded:
 - Who modified.
 - Date of modification.
 - Objective of the modification.
 - Observations to explain briefly the motive of modification.
 - Single page control is recommended, in a document and its reviews, to facilitate partial changes.

How to design a training/course?

Course files & data - Preservation

Every training activity shall have a technical repository with:

- Technical documents of the course
- Diplomas
- List of attendance
- Exams
- Evaluation questionnaires and reports
- Other documents such as contracts, payments, etc.



Course Design. Example

C250008	NON-DESTRUCTIVE TESTING (NDT)		
Minimum Duration (h)	18	Responsible Unit for Contents	CA/DSA
Expiration Course (years)	No expiration	Assignment of Instructors and Syllabus	CA
Refreshment Period (years)	Not applicable	Course Acronym	NDT
OBJECTIVES			
THE OBJECTIVE OF THIS COURSE IS TO PRESENT, IN A THEORETICAL WAY, THE KNOWLEDGE ON THE REQUIREMENTS OF THE RULES APPLICABLE TO NON-DESTRUCTIVE TESTING (NDT) IN ORGANIZATIONS PART 145, MY 21. PREPARES THE TRAINEE FOR THE DRAFTING AND REVISION OF MOE MANUALS, MOM AND POE OF ORGANIZATIONS THAT PERFORM NDT, AND KNOWLEDGE IS PROVIDED FOR THE PERFORMANCE OF AUDITS TO THE COMPANIES INVOLVED IN NDT AND ITS MANUALS. PRACTICAL TRAINING FOR THE REALIZATION OF NDT IS NOT INCLUDED, OR THE CHARACTERISTICS OF EACH TYPE OF NDT.			
MINIMUM CONTENT (SYLLABUS)			
MODULE 0 - PREAMBLE MODULE 1 - REGULATORY CONCEPTS MODULE 2 - NDT IN PART 145 MODULE 3 - NDT IN PART M MODULE 4 - NDT IN PART 21 MODULE 5 - NDT IN STANDARD UE-EN-4179 MODULE 6 - NDT GUIDANCE MODULE 7 - NDT ENTITIES			

Source: AESA. Technical Training Catalog.

Course Design. Example

C250002	FOREIGN PART-145 ORGANISATIONS. MOAP		
Minimum Duration (h)	12	Responsible Unit for Contents	CA/DSA
Expiration Course (years)	No expiration	Assignment of Instructors and Syllabus	CA Coordinator
Refreshment Period (years)	2	Course Acronym	MOAP
OBJECTIVES			
FAMILIARIZE STAFF WITH THE SUPERVISION ACTIVITIES OF MAINTENANCE ORGANIZATIONS PART 145 LOCATED OUTSIDE THE EUROPEAN UNION. AT THE END OF THE TRAINING ACTION, SUCH PERSONNEL SHOULD BE FAMILIAR WITH THE INSPECTIONAL TASKS REQUIRED BY EASA FOR THE INITIAL CERTIFICATION AND / OR MODIFICATION OF AN APPROVAL AS A MAINTENANCE ORGANIZATION, AS WELL AS THE COMPLIANCE OF THE SURVEILLANCE PLAN.			
MINIMUM CONTENT (SYLLABUS)			
1. GENERAL SCOPE OF CONTRACTING AND DOCUMENTATION 2. EASA / AESA INTERACTION WITH MAINTENANCE ORGANIZATIONS 3. INTERACTION BETWEEN EASA AND THE COMPETENT AUTHORITIES 4. TECHNICAL DOCUMENTATION 5. CASE STUDIES 6. AESA PROCEDURE 7. SURVEY AND EVALUATION TEST			

Source: AESA. Technical Training Catalog.

Course Design. Example

C235006 RAMP INSPECTIONS TO FOREIGN AIRCRAFT. SAFA			
Minimum Duration (h)	30	Responsible Unit for Contents	CA/DSA
Course Expiration (years)	No expiration	Assignment of Instructors and Syllabus	Head of Division DSSAOE
Refreshment Period (years)	1 Year	Course Acronym	SAFA
OBJECTIVES			
FAMILIARIZE THE TRAINEE WITH SAFA RAMP INSPECTION TO FOREIGN AIRCRAFT. EXPLAIN THE CONCEPT AND SCOPE THAT CAN BE EXPECTED DURING A RAMP INSPECTION AGAINST TO OTHER TYPES OF INSPECTION CARRIED OUT BY AESA TO SPANISH OPERATORS, INCLUDING THE OPERATION CARRIED OUT, AS WELL AS RESOURCES USED DURING THE INSPECTION, BOTH HUMAN (MAINTENANCE STAFF OR FLIGHT CREW) AND MATERIAL (AIRCRAFT) AND THE ASSOCIATED DOCUMENTATION (TO THE OPERATOR, THE FLIGHT, THE AIRCRAFT AND THE CREW). AN OVERVIEW OF THE UPDATED SANA PROGRAM WILL BE GIVEN TO THE CURRENT YEAR IN STATISTICAL TERMS OF NUMBER AND DISTRIBUTION OF INSPECTIONS AND DISCREPANCIES. FINALLY, THE WAY TO PROCEED IN A SANA INSPECTION BY THE INSPECTORS WILL BE DEVELOPED, AS WELL AS THE CHECKLIST USED. TO DO THIS, THE ASPECTS TO BE VERIFIED AND THE PRE-DEFINED DISCREPANCIES USED FOR EACH ELEMENT OF SUCH CHECKLIST WILL BE ANALYZED. ALL MODULES WILL INCLUDE PRACTICAL EXERCISES TAKEN FROM REAL INSPECTIONS. THIS COURSE IS NECESSARY TO AUTHORIZE TO RAMP INSPECTION INSPECTORS. IT WILL BE COMPLETED WITH AN OJT PROCESS DEFINED IN THE SAFA PROCEDURE.			
MINIMUM CONTENT (SYLLABUS)			
I. INITIAL (TEORETICAL) TRAINING COURSE - MODULE (GEN): GENERAL OVERVIEW OF THE RAMP INSPECTION PROGRAMME. - MODULE (A): FLIGHT CREW COMPARTMENT INSPECTION ITEMS. - MODULE (B): CABIN SAFETY INSPECTION ITEMS. - MODULLE (C): AIRCRAFT CONDITION INSPECTION ITEMS. - MODULE (D): CARGO INSPECTION ITEMS AND GENERAL ITEM. II. INITIAL (PRACTICAL) TRAINING COURSE - MODULE (A): FLIGHT CREW COMPARTMENT INSPECTION ITEMS. - MODULE (B): CABIN SAFETY INSPECTION ITEMS. - MODULLE (C): AIRCRAFT CONDITION INSPECTION ITEMS. - MODULE (D): CARGO INSPECTION ITEMS AND GENERAL ITEM.			

Source: AESA. Technical Training Catalog.

Course Design. Example

C230002	PRODUCTION ORGANISATIONS, ACCORDING TO PART 21. POA'S		
Minimum Duration (h)	12	Responsible Unit for Contents	DC/DSA
Expiration Course (years)	No expiration	Assignment of Instructors and Syllabus	Head of CD
Refreshment period (years)	Not applicable	Course Acronym	POA
OBJECTIVES			
THIS COURSE WILL DETAIL, IN GENERAL TERMS, THE LEGAL AND REGULATORY SYSTEM, AS DEFINED IN (EC) 216/2008 AND IN DETAIL THE REQUIREMENTS OF ANNEX I (PART 21), AS ADDRESSED BY SUBPART G (PRODUCTION ORGANIZATION APPROVAL) AND SUBPART F (PRODUCTION), WITHOUT THE APPROVAL OF THE PRODUCTION ORGANIZATION). ACCEPTABLE MEANS OF COMPLIANCE (AMC) AND GUIDANCE MATERIAL (GM) ARE INCLUDED.			
MINIMUM CONTENT (SYLLABUS)			
MODULE 1 - EASA MODULE 2 - THE LEGAL AND REGULATORY FOUNDATION. MODULE 3 - SUBPART A, GENERAL MODULE 4 - SUBPART G, PRODUCTION ORGANIZATION. APPROVAL MODULE 5 - SUBPART F, PRODUCTION WITHOUT POA MODULE 6 - SUBPART Q, PRODUCT IDENTIFICATION, ETC. MODULE 7 - SECTION B, SUBPART G MODULE 8 - SECTION B, SUBPART F MODULE 9 - FLIGHT TEST OPERATION MANUAL MODULE 10 - APPENDIX XII, CATEGORIES OF FLIGHT TESTING AND QUALIFICATIONS OF FLIGHT TESTING STAFF MODULE 11 - EASA POA PROCEDURES			

Source: AESA. Technical Training Catalog.

Training Plan Instructors



Instructors/Coordinators

Selection and Nomination of Instructors and Coordinators

- The selection of the Instructors / Coordinators corresponds to each Department and their nomination generally corresponds to the Director of the CAA, due to their inclusion in the approved Annual Training Plan.
- Given the existing human and professional potential of the CAAs, when selecting instructors, priority will be given to internal staff. Only in the event that CAA does not have adequate resources, can external trainers be used.
- The coordinator is the person who is in charge of unifying contents, didactic materials, exams and centralizing all administrative efforts with TD, in those training actions with greater management and coordination difficulties due to their duration and number of instructors.



Instructors/Coordinators

Instructors/Coordinators Requirements

The qualification of CAA instructors and course coordinators is carried out by defining a specific Qualification Profile and subject to qualification control called Instructor Profile.



Instructors/Coordinators

Instructors/Coordinators Requirements (Cont.)

The requirements to be an instructor / coordinator in CAA should be at least the following:

- Having completed the training course for trainers and communication techniques, which will also include training in design and content of training actions.
- Individual assessment of skills as an instructor.
- Knowledge and experience in the subject matter of the course.
- Have received training in CAA Training and Qualification Procedures.
- Continuous Evaluation through the evaluation surveys of the training actions carried out. It is required to maintain instructor status:
 - Obtain a good score in the evaluation surveys, proposed by the TD.
 - Compliance with their obligations to provide teaching material, exam preparation, and other obligations of the instructors included in the training procedure in a timely manner.

Instructors/Coordinators

Obligations of the Instructors: Before Training Action Execution

- Accept or propose dates of completion, at least 30 days prior to completion.
- Deliver the definition of the training action.
- Prepare didactic material and support material.
- Report the evaluation method to be used (if necessary).

Instructors/Coordinators

Obligations of the Instructors: During the Execution of the Training Action

- Comply with the established schedule.
- Sign the daily Signature Sheet, indicating the hours assigned by each instructor.
- Give the training action as established.
- Carry out the evaluation that has been established.

Instructors/Coordinators

Obligations of the Instructors: After the Execution of the Training Action

- Send the exams, tests or exercises to the TD, as well as all the documentation corresponding to its execution. The maximum delivery period established is 20 days from the end of the training action.

Instructors/Coordinators

Instructors Rights

Instructors will have the right to:

- Be remunerated for the work performed, according to the established scales.
- Receive a certificate that certifies the instructor's participation in the training action.
- The didactic material of the training action may not be used in other courses to third parties, nor used for other purposes without the prior express consent of the author.
- Be informed of your final assessment.

Instructors/Coordinators

Rights & Obligations of the coordinators

The coordinators will have the right to be remunerated for the work done, according to the established scales.

The coordinators' obligations are:

- Perform planning.
- Coordinate content and
- He is responsible that he and all instructors fulfill their obligations.



Instructors/Coordinators

External Entities & Instructors

All theoretical-practical training courses taught in external organizations, or in CAA but with external instructors, must meet the qualification requirements established in the CAA Technical Qualification Management Procedure.



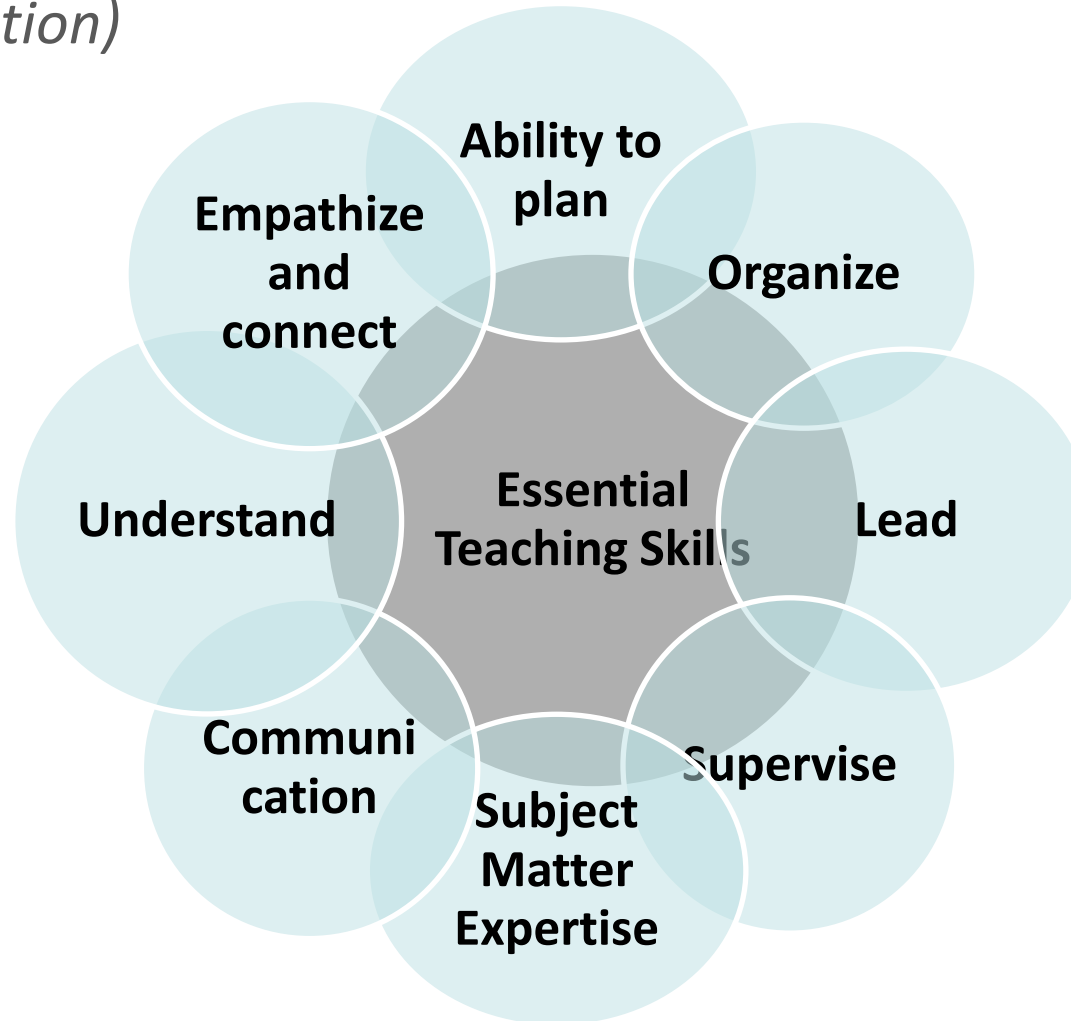
How to design the training plan?

- **What are we going to see in this section?**
- In this section we are going to discuss how we should manage the generation of a Training Plan.
- Instructor selection
 - Communication abilities
- With the purpose of identifying:
 - Abilities for trainers performing train-the-trainer courses and course developers profiles

How to design the training plan?

→ Essential Teaching Skills

(As defined by the US Department of Transportation/Federal Aviation Administration)



How to design the training plan?

→ Essential Teaching Skills

Assessment Skills

Effective instructors are not only knowledgeable about aviation, but are also knowledgeable about effective teaching methods.



How to design the training plan?

→ Responsibilities of all aviation instructors

Providing adequate instructions

Helping students learn

Demanding adequate standards of performance

Emphasizing the positive

Ensuring and embedding aviation safety

How to design the training plan?

→ Other Considerations for trainers

- Trainers need to be fully aware of the Training Organisation Exposition.
- Trainers performing “train-the-trainers” have to be trained in latest instructional techniques as well as the most current technology developments in subjects to be trained.
- Trainers have to be able to summarise and extract key points to present in front of future trainers.
- Trainers need to be able to choose the training methods and techniques which are most appropriate to audience.
- Trainers are more effective if they have hands-on experience in their area of expertise.
- Trainers need to be aware of Instructional Aids and Training Technologies - Audio or visual aids.

How to design the training plan?

→ Instructor Code of Conduct

- Make safety the number one priority.
- Develop and exercise good judgment in making decisions.
- Recognize and manage risk effectively.
- Be accountable for his or her actions.
- Act with responsibility and courtesy.
- Adhere to prudent operating practices and personal operating parameters.
- Adhere to applicable laws and regulations.



How to design the training plan?

- **Trainer considerations for course development**
- Training need analysis for determining
- the characteristics and content of the course.
- Structure, & logical sequence.
- Path sequence of learning
- Current flight publications and bulletins.
- Applicable regulations, current knowledge and maintenance training manuals.



How to design the training plan?

→ Trainer considerations for course development (cont.)

- To properly organise training materials.
 - Past to Present.
 - Simple to Complex.
 - Known to Unknown.
 - Most Frequently Used to Least Used.
- To develop/use printed materials and electronic sources as supplements

How to design the training plan?

- **Trainer considerations for course development (cont.)**
- To define Training Objectives and Standards.
- To determine the desired level of learning by using one or more of the three domains of learning:
 - Cognitive (knowledge),
 - Affective (attitudes, beliefs, and values),
 - Psychomotor (physical skills).



Instructor Nomination - Example



MINISTERIO
DE FOMENTO



INTERNAL NOTE

YOURS/REF:

OUR/REF:

DATE:

SUBJECT:

RECIPIENT:

The nomination of the instructors / Coordinators is hereby communicated in the attached list, for the following Training Action:

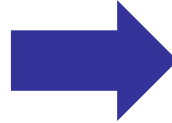
Training Action:

Code:

AESA TRAINING PLAN:

Expected completion date:

Nominations List:



The nomination of the instructors / Coordinators is hereby communicated in the attached list, for the following Training Action:

Training Action:

Code:

AESA TRAINING PLAN:

Expected completion date:

Nominations List:

The selection of the Instructor / Coordinator has been made by the Directorate of taking into account the professional experience and knowledge in the matter covered by this Training Action.

What we bring to your knowledge for the appropriate purposes.

AESA DIRECTOR

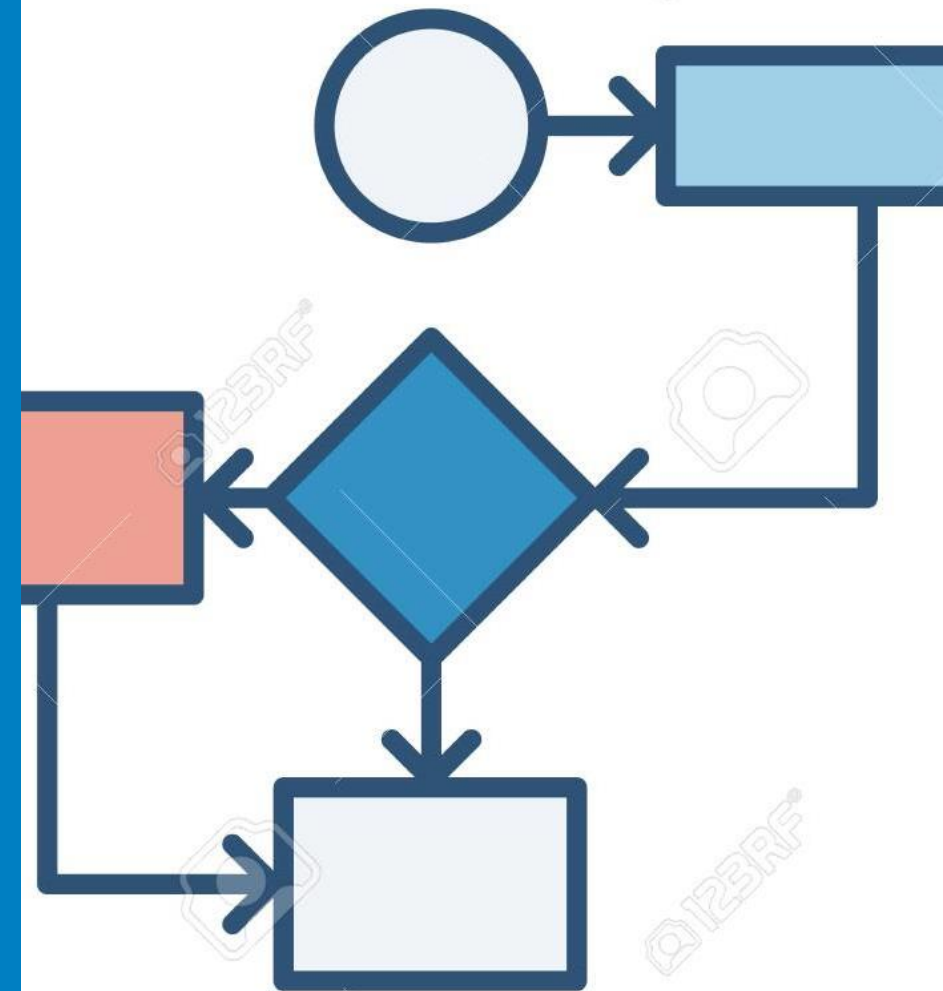
(P.D.F. Resolución de 1 de Febrero de 2016 de la Dirección de AESA)

HEAD OF TRAINING DEPARTMENT

The selection of the Instructor / Coordinator has been made by the Directorate of taking into account the professional experience and knowledge in the matter covered by this Training Action.

What we bring to your knowledge for the appropriate purposes.

CAA Training Plan Flow-chart



CAA Training Management Flow-chart



CAA Training Plan Example

TRAINING PLAN



CAA Training Plan Example

 SPECIFIC TRAINING SCHEDULE, 2010											
COURSE CODE	TRAINING ACTION CODE	COURSE	Nr CALLS	DATE	TYPE	PLACE	HOURS	DAYS	INSTRUCTORS	Preference	NOTES
GENERAL SCOPE											
BASIC LEGISLATION AND SAFETY REGULATIONS											
C220001	1022001	BASIC LEGISLATION	N/A	From March	E-Learning		18,00	3,00	N/A	DSA	
C220002	1022002	AERONAUTICAL INSPECTION	1	September, 13th to 15th	Classroom	AESA	16,00	2,67	AESA/DGAC	DSA	
C220003		FUEL TANK SAFETY	3								
	1022003	FUEL TANK SAFETY	1	February, 24th	Classroom	SENASA	6,00	1,00	AESA	DSA	Level 1
	1022004	FUEL TANK SAFETY	2	April, 8th	Classroom	SENASA	6,00	1,00	AESA	DSA	Level 1
	1022004	FUEL TANK SAFETY	3	October, 5th	Classroom	SENASA	6,00	1,00	AESA	DSA	Level 1
QUALITY SYSTEMS											
C215001		QUALITY SYSTEMS AND AUDIT TECHNIQUES									
C215002		QUALITY SYSTEMS	3							DSA	
	1021501	QUALITY SYSTEMS	1	March, 22nd	Classroom	SENASA	7,00	1,00	AESA /SENASA	DSA	
	1021502	QUALITY SYSTEMS	2	April, 27th	Classroom	SENASA	7,00	1,00	AESA /SENASA	DSA	
	1021503	QUALITY SYSTEMS	3	May, 10th	Classroom	SENASA	7,00	1,00	AESA /SENASA	DSA	
	1021504	QUALITY SYSTEMS	4	Third quarter, 2010	Classroom	SENASA	7,00	1,00	AESA /SENASA	DSA	
C215003		AUDIT TECHNIQUES	3								
	1021505	AUDIT TECHNIQUES	1	March, 23th to 24th	Classroom	SENASA	14,00	2,00	AESA /SENASA	DSA	
	1021506	AUDIT TECHNIQUES	2	April, 27th to 29th	Classroom	SENASA	14,00	2,00	AESA /SENASA	DSA	
	1021507	AUDIT TECHNIQUES	3	May, 11th to 12th	Classroom	SENASA	14,00	2,00	AESA /SENASA	DSA	
	1021508	AUDIT TECHNIQUES	4	Third quarter, 2010	Classroom	SENASA	14,00	2,00	AESA /SENASA	DSA	
C215004	1021509	SAFETY MANAGEMENT SYSTEM (SMS)	1	November, 3rd to 4th	Classroom	SENASA	12,00	2,00	AESA /SENASA	DSA	
HUMAN FACTORS											
C225001	1022501	HUMAN FACTORS	N/A	1st Session: March, 1st to 14th 2nd Session: March, 15th to 28th 3rd Session: April, 1st to 14th	E-Learning		18,00	3,00	N/A	DSA	14 days for completion

Source: AESA. Training Plan. 2010.

CAA Training Plan Example

AIRCRAFT SAFETY AREA												
AIRCRAFT GENERAL KNOWLEDGE												
C240001		AIRCRAFT <6700KG	2									
	1024001	BEECHCRAFT F33A "BONANZA" FAMILIARIZATION	1	May, 26th to 29th	Classroom	AESA	24	4,00	AESA	DSA		
	1024002	BEECHCRAFT C80 "KING AIR" FAMILIARIZATION	1	September, 27th to 30th	Classroom	AESA	24	4,00	AESA	DSA		
C240002		AIRCRAFT >6700KG	3									
	1024003	BOEING B-737 NG FAMILIARIZATION	1	March, 22nd to 26th	Classroom	AESA	30	5,00	AIR EUROPA	DSA		
	1024004	EMBRAER 190 FAMILIARIZATION	1	October, 4th to 8th	Classroom	AESA	30	5,00	AIR EUROPA	DSA		
	1024005	AIRBUS A-320 FAMILIARIZATION	1	December, 13th to 17th	Classroom	IBERIA	30	5,00	IBERIA	DSA		
C240003		HELICOPTERS	3									
	1024006	HELICOPTERS AND SYSTEMS FAMILIARIZATION	1	Last week of February	Classroom	SENASA	14	2,00	SENASA	DSA		
	1024007	HELICOPTERS AND SYSTEMS FAMILIARIZATION	2	March, 2nd to 4th	Classroom	SENASA	14	2,00	SENASA	DSA		
	1024008	HELICOPTERS AND SYSTEMS FAMILIARIZATION	3	Third quarter, 2010	Classroom	SENASA	14	2,00	SENASA	DSA		Reservation
C240004		BALLOONS	1									
	1024009	BALLOONS FAMILIARIZATION	1	February or March	Classroom	ULTRAMAGIC	20	3,33	ULTRAMAGIC	DSA		
INITIAL AIRWORTHINESS												
C230001	1023001	GENERAL PART 21	1	May, 10th to 12th	Classroom	AESA	18	3,00	AESA	DSA		
C230002	1023002	PRODUCTION ORGANIZATIONS CERTIFICATION (POA's)	1	TBD	Classroom	SENASA	18	3,00	SENASA	DSA		
C230003	1023003	DESIGN ORGANIZATIONS CERTIFICATION (DOA's)	1	TBD	Classroom	SENASA	18	3,00	SENASA	DSA		
C230004		AIRWORTHINESS REVIEW & CERTIFICATION	2									
	1023004	AIRWORTHINESS REVIEW & CERTIFICATION	1	April, 19th to 22nd	Classroom	AESA	24	4,00	AESA	DSA		
	1023005	AIRWORTHINESS REVIEW & CERTIFICATION	2	October, 25th to 28th	Classroom	AESA	24	4,00	AESA	DSA		
OPERATIONS												
C235001		EU-OPS	1									
	1023501	EU-OPS	1	March, 22nd to 25th	Classroom	AESA /SENASA	24	4,00	SENASA	DSA		
	1023502	EU-OPS	2	April, 19th to 22nd	Classroom	AESA /SENASA	24	4,00	SENASA	DSA		
C235002		JAR FCL-1 AND JAR FCL-2	2									
	1023503	JAR FCL-1 AND JAR FCL-2	1	April, 13th to 15th	Classroom	AESA	18	3,00	AESA	DSA		
	1023504	JAR FCL-1 AND JAR FCL-2	2	September, 21st to 24th	Classroom	AESA	18	3,00	AESA	DSA		
	1023505	JAR FCL-1 AND JAR FCL-2	3	Third quarter, 2010	Classroom	AESA	18	3,00	AESA	DSA		Reservation
C235003		OPERATIONAL APPROVALS AND SPECIFIC AUTHORIZATIONS	2									
	1023506	OPERATIONAL APPROVALS AND SPECIFIC AUTHORIZATIONS	1	June, 7th to 9th	Classroom	AESA	18	3,00	AESA	DSA		
	1023507	OPERATIONAL APPROVALS AND SPECIFIC AUTHORIZATIONS	2	October, 13th to 15th	Classroom	AESA	18	3,00	AESA	DSA		
C235004		JAR OPS 3	2									
	1023508	JAR OPS 3	1	May, 24th to 26th	Classroom	AESA /SENASA	18	3,00	SENASA	DSA		
	1023509	JAR OPS 3	2	June, 2nd to 4th	Classroom	AESA /SENASA	18	3,00	SENASA	DSA		
	1023511	DANGEROUS GOODS	3	October, 14th to 16th	Classroom	AESA /SENASA	18	3,00	SENASA	DSA		
C235005		DANGEROUS GOODS	2									
	1023512	DANGEROUS GOODS	1	February, 25th to 26th	Classroom	SENASA	12	2,00	SENASA	DSA		Basic Level
	1023513	DANGEROUS GOODS	2	October, 2010	Classroom	SENASA	12	2,00	SENASA	DSA		Basic Level
C235006	1023514	SAFA RAMP INSPECTION	1	January, 25th to 28th	Classroom	SENASA	18	3,00	AESA/SENASA	DSA		
C235007	1023515	FLIGHT SIMULATORS CERTIFICATION (FSTD)	1	June, 10th to 11th	Classroom	AESA	18	3,00	AESA	DSA		
C235008		MINIMUM EQUIPMENT LIST (MEL/MMEL)	2									
	1023516	MINIMUM EQUIPMENT LIST (MEL/MMEL)	1	June, 1st to 2nd	Classroom	AESA	12	2,00	SENASA	DSA		
	1023517	MINIMUM EQUIPMENT LIST (MEL/MMEL)	2	Novembre, 23rd to 24th	Classroom	AESA	12	2,00	SENASA	DSA		

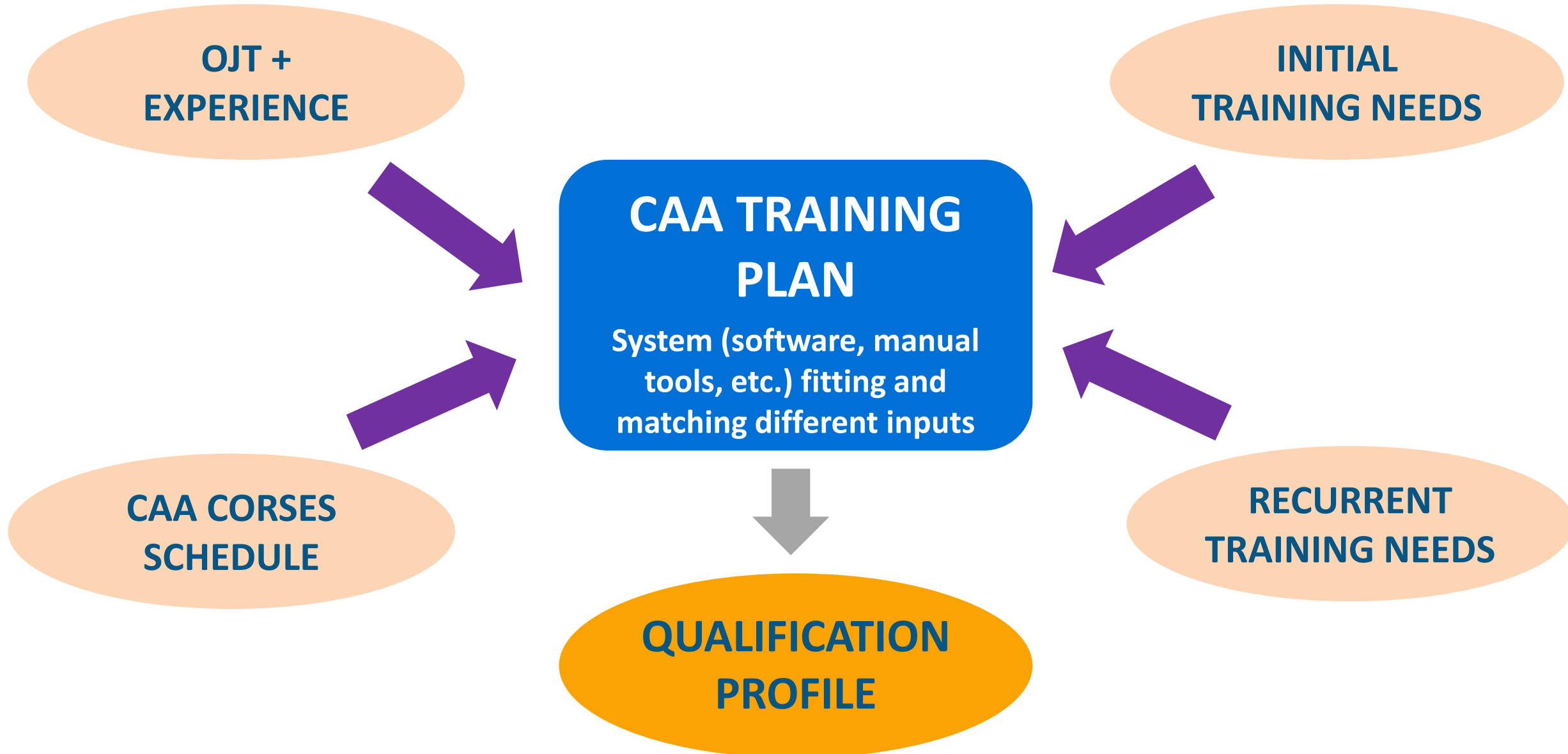
Source: AESA. Training Plan. 2010.

CAA Training Plan Example

CONTINUING AIRWORTHINESS											
C245001	1024501	GENERAL PART M	2								
	1024501	GENERAL PART M	1	February, 22nd to 23rd	Classroom	AESA	12	2,00	AESA	DSA	
	1024502	GENERAL PART M	2	June, 14th to 15th	Classroom	AESA	12	2,00	AESA	DSA	
C245002	1024503	CAMO's PART M SUBPARTS C AND G	1	March, 29th to 30th	Classroom	AESA	12	2,00	AESA	DSA	
MAINTENANCE ORGANIZATIONS											
C250001	1025001	PART M SUBPART F ORGANIZATIONS	1	May, 13th to 14th	Classroom	AESA	12	2,00	AESA	DSA	
C250002		PART 145+MOAP ORGANIZATIONS	1								
C250003	1025002	PART 145 ORGANIZATIONS	1	17 a 19 de Mayo	Classroom	AESA	15	2,50	AESA	DSA	
C250004	1025003	MOAP	1	May, 19th	Classroom	AESA	3	0,50	AESA	DSA	
C250005		PART 66 LICENCES AND PART 147 TRAINING ORGANIZATIONS	2								
C250006	1025004	PART 66 LICENCES	1	February, 23rd	Classroom	SENASA	9	1,50	SENASA	DSA	
C250007	1025005	PART 147 TRAINING ORGANIZATIONS	1	February, 24th to 25th	Classroom	SENASA	9	1,50	SENASA	DSA	
C250008		NON-DESTRUCTIVE TESTS (NDT)	2								
	1025006	NON-DESTRUCTIVE TESTS (NDT)	1	May, 20th to 21st	Classroom	IBERIA	18	3,00	IBERIA	DSA	
	1025007	NON-DESTRUCTIVE TESTS (NDT)	2	September, 16th to 17th	Classroom	IBERIA	18	3,00	IBERIA	DSA	
C250009		MAINTENANCE PROGRAMME	2								
	1025008	MAINTENANCE PROGRAMME	1	May, 24th to 28th	Classroom	AESA	12	2,00	AESA	DSA	
	1025009	MAINTENANCE PROGRAMME	2	June, 7th to 8th	Classroom	AESA	12	2,00	AESA	DSA	
AIRCRAFT SAFETY REFRESHMENT SEMINARS											
	1023006	PART 21 SEMINAR	1	Fourth quarter	Classroom	AESA	6	1,00	AESA	DSA	If required
	1023518	EU OPS SEMINAR	1	Fourth quarter	Classroom	AESA	6	1,00	AESA	DSA	If required
	1025010	PART 145 SEMINAR	1	Fourth quarter	Classroom	AESA	6	1,00	AESA	DSA	If required
	1024504	PART M SEMINAR	1	Fourth quarter	Classroom	AESA	6	1,00	AESA	DSA	If required
		SEMINAR 1. REGULATIONS UPDATE	1	Fourth quarter	Classroom	AESA	6	1,00	AESA	DSA	If required
		SEMINAR 1. REGULATIONS UPDATE	1	Fourth quarter	Classroom	AESA	6	1,00	AESA	DSA	If required
AIRPORTS SCOPE											
PUBLIC STATE AIRPORTS											
C430001	1043001	INSPECTION. Basic fundamentals.	1	April, 5th	Classroom	AESA	6	1,00	AESA	DSANA	
C430002	1043002	CERTIFICATION. Basic fundamentals.	1	April, 6th	Classroom	AESA	6	1,00	AESA	DSANA	
C430003	1043003	AIRPORT MANUAL. Inspection and Certification of Procedures	1		Classroom		87	14,50		DSANA	
C430004	1043004	INSPECTION / SUPERVISION OF THE AIRPORT MANUAL	1	April, 7th	Classroom	AESA	6	1,00	AESA	DSANA	Main Course Module
C430005	1043005	INSPECTION / SUPERVISION OF THE AIRPORT NOTIFICATION PROCEDURE.	1	April, 8th	Classroom	AESA	3	0,50	AESA	DSANA	Main Course Module
C430006	1043006	INSPECTION / SUPERVISION OF THE PROTECTION PROCEDURE OF LOCATIONS OF AERONAUTICAL RADIO-ELECTRICAL INSTALLATIONS.	1	April, 8th	Classroom	AESA	3	0,50	AESA	DSANA	Main Course Module
C430007	1043007	INSPECTION / SUPERVISION OF THE PROCEDURE OF ACCESS TO THE MOVEMENT AREA	1	April, 9th	Classroom	AESA	3	0,50	AESA	DSANA	Main Course Module
C430008	1043008	INSPECTION / SUPERVISION HAZARDOUS MATERIALS HANDLING PROCEDURE	1	April, 9th	Classroom	AESA	3	0,50	AESA	DSANA	Main Course Module
C430009	1043009	INSPECTION / SUPERVISION OF THE SALVATION AND FIRE FIGHTING PROCEDURE.	1	April, 12th	Classroom	AESA	3	0,50	AESA	DSANA	Main Course Module
C430010	1043010	INSPECTION / SUPERVISION VEHICLE CONTROL PROCEDURE, AERONAUTICAL PART	1	April, 12th	Classroom	AESA	3	0,50	AESA	DSANA	Main Course Module

Source: AESA. Training Plan. 2010.

CAA Training Plan Mechanism



Conclusion

Doubts ?



End of Module 9

Establishing an Inspector Training Program

Thank you very much for your attention!

Integrated Training Roadmap for Inspectors Workshop

MODULE 10. DESIGNING TRAINING USING COMPETENCIES

Giuseppe Sabatino

Synchronous Distance Learning – Virtual Classroom

June 22nd – 25th, 2020

TRAINING FOR..... COMPETENCIES



CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Good objectives are wasted on poor training methods

CHOOSING TRAINING METHODS FOR COMPETENCIES

- Good training methods help learning, but have little value if training objectives are poor

CHOOSING TRAINING METHODS FOR COMPETENCIES

- The Training Project Manager should choose a method of instruction....not in terms of training activities, but in terms of the trainee activities as a learner.
- In making this decision, the trainer considers the ways people learn

CHOOSING TRAINING METHODS FOR COMPETENCIES

- A method should deliver an organized set of activities that will result in **meaningful** learning experiences for the trainees

CHOOSING TRAINING METHODS FOR COMPETENCIES

- Methods can be grouped in three broad major categories
 - **Presentational**
 - **Interaction**
 - **Application**

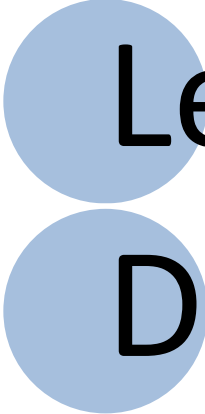
CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Presentational method

- provides situations in which the skill or material to be learned is in some way presented to or demonstrated for the learner
- there is little, if any, activity or interaction required of trainees other than their attention and desire to learn

CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Presentational method includes



Lecture

Discourse

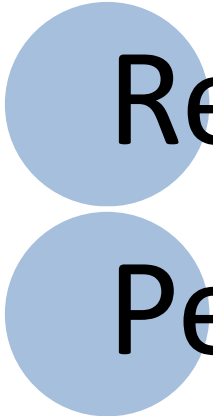
CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Presentational method includes

Panel
Plays

CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Presentational method includes

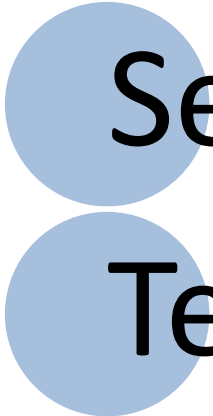


Reading

Performance Demo

CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Presentational method includes



Self Training

Teaching Interview

CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Interaction

- It presents situations in which trainees interact verbally with an instructor, group leader, or with each other.
- Learning is enhanced as trainees deal with the material as a group.
- This method presupposes a certain amount of previous preparation by the trainees

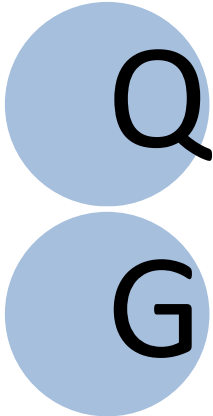
CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Interaction method includes

Questioning
Socratic

CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Interaction method includes



Queries

Guided discussion

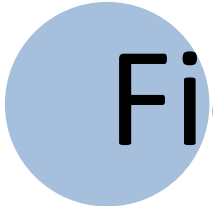
CHOOSING TRAINING METHODS FOR COMPETENCIES

→ Application method

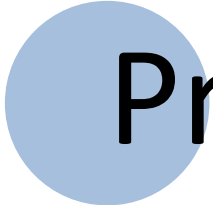
- It provides the trainees with opportunities to apply previous learned material in situations calling for their practical use
- It implies transfer of concepts, decision making and problem solving

CHOSING TRAINING METHODS FOR COMPETENCIES

→ Application method includes



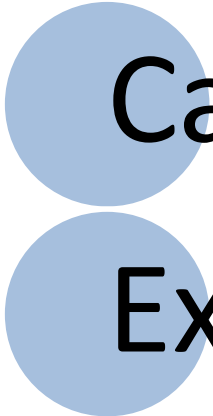
Field trips



Project assignment

CHOSING TRAINING METHODS FOR COMPETENCIES

→ Application method includes



Case studies

Experiential learning

EVALUATING THE TRAINING METHODS



EVALUATING TRAINING METHOD

- All methods are equally good, depending on the material, the classroom, the trainees, the objectives and the general context

EVALUATING TRAINING METHOD

→ LECTURE METHOD

It has been the most common training method.

It is well suited for large as well as small to very small group.

It can be formal, informal, briefing type or speech

EVALUATING TRAINING METHOD

→ LECTURE METHOD

→ **Advantages**

- it is one of the most efficient training methods for presenting many facts or ideas in a relatively short time. If the material that has been logically organized, can be presented concisely and in rapid sequence

EVALUATING TRAINING METHOD

→ LECTURE METHOD

→ **Advantages**

- Is particularly suitable for introducing a subject, and to ensure all trainees have the necessary background to learn a subject. By using the lecture in this manner, we can offer trainees with a varied backgrounds a common understanding.

EVALUATING TRAINING METHOD

→ LECTURE METHOD

→ **Disadvantages**

- It does not provide an opportunity to estimate the trainees progress before an assessment
- Within a single lecture period, we may unwittingly present more information than the trainees can absorb or that are necessary, and there is little accurate means during the lecture to determine what has been passed on or what they (the trainees) have learned

EVALUATING TRAINING METHOD

→ LECTURE METHOD

→ **Disadvantages**

- Too often, the lecture makes no or very little provision for trainees participation, as result it tends to foster passiveness and dependence on the trainer.

EVALUATING TRAINING METHOD

→ LECTURE METHOD

→ **Disadvantages**

- Normally it takes a long time preparing for the lectures. This could be of great burden on the already thin resources at the disposal of a Training Project Manager

EVALUATING TRAINING METHOD

→ LECTURE METHOD

→ **Disadvantages**

- Many trainers find it difficult to hold the attention of their students when they lecture for an entire class period. To use the lecture method effectively, we (the trainers) obviously need considerable skill in speaking.

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

- A guided discussion is different from free discussion and a peer-controlled seminar in a guided discussion, the trainer carefully plans the lesson to reach desired learning outcomes.
- The group interacts in response to questions; the trainer refrains from entering the discussion as an active participant

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

- The discussion method is a superior method for teaching more complex cognitive and affective objectives. Thus, this method is appropriate for promoting the understanding of concepts and principles and for the development of problem-solving skills.
- It is inappropriate for transmitting knowledge-level material where lectures or readings are more efficient

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

- Group size
- Time available
- Instructor personality or ability
- Common base knowledge
- Use of a problem
- Room arrangement

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

→ **Introduction**

- A good overview pinpoints the topic for discussion and the key areas to be developed. The overview visual should be available throughout the lesson to aid trainees in following the lesson organization and to assist the trainer in summarizing and transitioning between main ideas.

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

→ **Development**

- Following the LOQs appropriate FUQ (follow-up questions) must be developed. FUQs will ensure that characteristics, examples, of the concept are developed. Since guided discussions are normally conducted at the comprehension level, little time should be devoted to FUQs at the knowledge level. Instead, use questions dealing with "how," "why," and "what effect"

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ Criticalities

→ Development

- To develop a concept, the discussion may start with an LOQ (lead-off questions) that calls for a definition of the concept, such as "How would you define safety?"
- If you have already provided the trainees with a definition in your introduction, your LOQ might focus on the attributes (characteristics) of the concept, such as "What might be the indicators of safety ? “

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

→ Controlling

- How active should your role be in the discussion?
- Simply put, the more you talk the less the trainees can talk, which lessens the benefit of using the guided discussion method. The trainer should limit to clarify, questioning, and summarizing

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

→ Summarizing

- There should be a plan for summaries to occur after discussing main points and objectives. Unplanned summaries occur because of need and may be used periodically to designate relationships

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

→ Group unresponsive

- An LOQ could be followed by a long silence or a total passiveness. Several explanations exist. Perhaps a clear context for the questions has not been established in your introduction.
- The question may be double-barreled, too long, or confusing.
- Trainees may not understand their role in the discussion

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

→ Biasing or Objectivity

- A trainer must be constantly aware of the power he/she has in the classroom.
- A casual mention of their own opinions, attitudes, and beliefs will influence some class members.
- Opinions expressed should be of a quality that do not close discussion or lead trainees to conformity.

EVALUATING TRAINING METHOD

→ GUIDED DISCUSSION METHOD

→ **Criticalities**

→ Dead Topic

- A dead topic is one that no longer helps achieve your objective.
- Signs of a dead topic include periods of silence, repetition of points already made, boredom, or inattention.

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

- It helps bridge the gap in the classroom between theory and practice by using a real world situation that focuses on previously learned concepts and principles in realistic situations.

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

- The case study, typically written, is an account provided to trainees that serves as a basis for class discussion.
- Usually, a case will describe a problem already faced by others in a given field.
- The greatest value of the case study is that it challenges trainees to apply what they know and comprehend to a realistic situation.
- Once the knowledge level of learning has been achieved, the case study is an excellent way for students to progress to the higher levels

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ **Limitations**

- The case method may not work with trainees with limited knowledge or with large classes. It is not applicable where trainees are learning a procedure or a single solution that has been accepted as "correct."
- Case studies do not lend themselves to developing objectives at the knowledge level

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ **Advantages**

- Provides experience to trainees in solving problems.
- The case method provides an opportunity for them to gain experience in making decisions and in working with other people. It exposes them to a number of ways to solve problems.

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ **Advantages**

→ Because the case may not list all pertinent facts, the trainees also learn how to cope with ambiguity and uncertainty.....just like in real life

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ **Typical Case Application**

→ Often a course will proceed by lectures, discussions, and other more-used methods. Toward the end of the training, trainees will apply what they have learned to a series of cases specifically designed to support the course objectives. This method is particularly appropriate when students start at lower levels of learning (such as the knowledge level) and are brought gradually to the higher levels (competence)

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ **Case selection methodology**

→ In evaluating a case for use, regardless of the source, the case selected should respond to certain requisites:

- Realistic
- Meaningful
- Challenging
- Complete

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ **Case selection methodology**

➤ Realistic

A case is realistic if it describes an actual problem or situation, even if the organization or participants are disguised

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ Case selection methodology

➤ Meaningful

The case should be meaningful to students so they can identify it. They must be generally familiar with the problem either through their past experience or in the experiences they expect to face in the future

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ Case selection methodology

➤ Challenging

The case should contain actual or potential controversy. If the case is one in which the solution is obvious, it should be rejected

EVALUATING TRAINING METHOD

→ CASE STUDY METHOD

→ **Case selection methodology**

➤ Complete

A case is complete within itself if presents enough information so students can deal with the problems without reference to outside sources or the instructor.

EVALUATING TRAINING METHOD

→ DEMONSTRATION-PERFORMANCE METHOD

- The demonstration-performance (D-P) method is a proven method for teaching mental or physical skills that require trainee practice for skill mastery.
- This method is based on the principle that students learn best by doing

EVALUATING TRAINING METHOD

→ DEMONSTRATION-PERFORMANCE METHOD

- In the D-P method, the trainer tells and shows trainees how to do the skill, they practice under the instructor's supervision, and they are evaluated on their performances against predetermined criteria

EVALUATING TRAINING METHOD

→ DEMONSTRATION-PERFORMANCE METHOD

→ **Key Considerations**

- Trainer should attempt to speak at the learner level and avoid unnecessary jargon and technical terms the students may not understand unless previously explained
- It is neither appropriate nor effective for trainers to try to impress with their expertise by using unnecessarily complicated language

EVALUATING TRAINING METHOD

→ DEMONSTRATION-PERFORMANCE METHOD

→ **Key Considerations**

- The trainer must demonstrate the skill correctly and safely the first time it is demonstrated.
- When the skill is demonstrated incorrectly, the trainer may lose credibility, and trainees will have to unlearn the incorrectly presented material before they can learn it correctly

To design training we first must know how and what



End of Module 10

DESIGNING TRAINING USING COMPETENCIES

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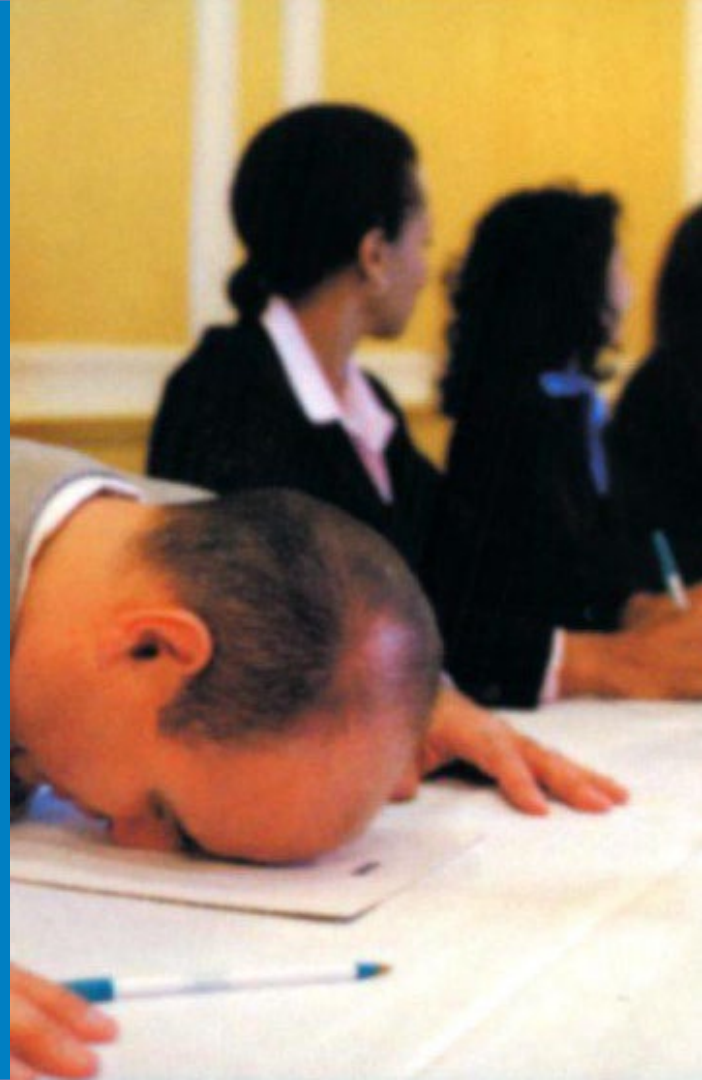
MODULE 11. TRAINING DELIVERY METHODS

Giuseppe Sabatino

Synchronous Distance Learning – Virtual Classroom

June 22nd – 25th, 2020

How To Deliver Training



PLANNING

- To ensure the greatest probability of learning, we must carefully select and arrange activities that will produce the desired learning outcomes in our students.
- Only through careful planning can we be certain to include all necessary information and have our lesson plan properly organized to achieve the lesson objective(s).

PLANNING

→ Steps

Broadly speaking the complete cycle of planning training includes:

- Determine the objective(s)
- Appoint subject matter experts
- Researching the topic(s) as defined by the objective(s)
- Selecting the appropriate instructional (teaching) method
- Choosing adequate support material
- Prepare a strategy statement

PLANNING

→ Determining the objective(s)

- Objectives need to be trainee-centered. We should not state them in terms of what we want to teach, but rather in terms of what we want our trainees to learn.
- Whatever the level, the objective should guide our subsequent planning. Without a clear objective, we won't know if we, or more importantly, our trainees ever get there.

PLANNING

→ Appoint the Subject Matter Expert(s)

- They will be those who can ratify the validity of our objectives and that of our assessment methods.

PLANNING

→ Researching the topic(s)

After writing or determining a training objective, we are ready to decide on the main points of the lesson and gather materials about the training topic.

- Do not collect a mass of research materials and then develop an objective to match the findings!
- However, research may justify a decision to modify or rearrange main points for greater accuracy or clarity !

PLANNING

→ Choosing the supporting material

A major factor in developing a training method is determining the kind of support material to use.

While organizing the ideas forms the basic structure of any training, almost all ideas need some form of clarification or proof if learning is to occur.

PLANNING

→ Choosing the supporting material

Types of supporting material:

- Definition
- Examples
- Comparisons
- Testimony
- Statistics

PLANNING

→ Statement

- The process for developing objectives for training requires to be aware of the level-of-learning (LoL) sought. Before we can address the LoL we need a broad understanding of the cognitive taxonomy.

PLANNING

→ Statement

- The most used cognitive taxonomy is Bloom's. This taxonomy is simply a means of rank ordering learning within the cognitive domain.
- We must pass through each of the rank orders or levels as we move to the more complex behaviors.

PLANNING

→ There are several training levels, depending on the learning that is intended to be addressed:

- Cognitive knowledge level
- Cognitive comprehension level
- Cognitive application level
- Cognitive analysis and sythesis level
- Cognitive evaluation level

PLANNING

→ Cognitive knowledge level

- Knowledge is the recall or recognition of previously learned material (facts, theories, etc.) essentially in the same form as taught.

PLANNING

→ Cognitive comprehension level

- Comprehension is defined as seeing relationships, concepts, and abstractions beyond the simple remembering of material.
- This typically involves translating, interpreting, and estimating future trends.

PLANNING

→ Cognitive application level

- Application is the ability to use learned material in new and concrete situations, including the application of rules, methods, concepts, principles, laws, and theories.

PLANNING

→ Cognitive analysis and synthesis level

- Analysis is the ability to break down material into its components so that the organizational structure may be understood, including the identification of the parts, relationships between parts, and recognition of the organization.
- Synthesis is the ability to put parts together to form new patterns or structures, such as a unique communication (a theme or speech), a plan of operations, or a set of abstract relations (schemes for classifying information).

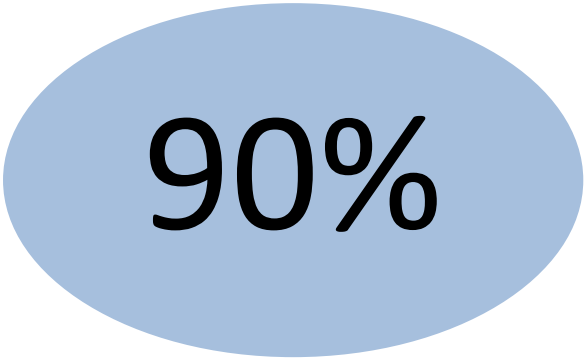
PLANNING

→ Cognitive

- Evaluation is defined as the ability to judge the value of material for a given purpose. Learning in this area is the highest in the cognitive hierarchy because it involves elements of all the other categories, plus conscious value judgments based on clearly defined criteria and objectives.

PLANNING

→ THE MATERIAL THAUGHT IS MORE THAN.....



90%

AT THE LOWER THREE LEVELS OF THE COGNITIVE LEVEL

PLANNING

→ Knowledge-level training

- Knowledge-level learning is the most elementary and least complex level of learning in the cognitive domain. Although it is the lowest level of learning, **it is absolutely necessary as the foundation for all higher levels.**

PLANNING

→ Knowledge-level training

- Learning facts is not necessarily easy. Some information is fairly simple to remember; for example CAA structure, or the range and payloads of various aircraft.
- Other information, such as complex operating procedures and the wide range of complex regulations is extremely difficult to learn and remember.

PLANNING

→ Knowledge-level training consideration

- Training at the knowledge level requires logical planning and effective presentation(s)
- Aids to memorization such as recurrent training and use of multimedia are important points at this level of learning.
- **While knowledge- level trainings are at the lower end of the cognitive taxonomy, learning and remembering facts are the foundation stones upon which the understanding of concepts and principles is built.**

PLANNING

→ Comprehension-level training

- When conducting training at the comprehension level, it is often delivered either concepts or principles.
- Using this classification system, training concept needs to be addressed first, since principles are statements of relationship between two or more concepts.

PLANNING

→ Comprehension-level training

- Concept definition is mainly a statement(s) that identify critical attributes and indicate how these attributes are combined.

PLANNING

→ Comprehension-level training

- Concept training is fundamental to instruction at the comprehension level. As trainers, we want our trainees to be able to solve problems on the job (application). Problem solving requires that certain rules or principles have been learned.
- These principles cannot be learned until certain concepts have been learned.

PLANNING

→ Comprehension-level training

Objective: Comprehend the concept of type

Samples of observable behavior:

1. Define type in trainees' own words.
2. Distinguish critical attributes of type from variable attributes.
3. Give new examples and non-examples of type.
4. Given scenarios containing type and non type.
5. Explain the concept of type.

PLANNING

→ Comprehension-level training

Objective: Comprehend the concept of type

Samples of observable behavior:

1. Define type in student's own words. Knowledge
2. Distinguish critical from variable attributes of type. Comprehension
3. Give new examples and non-examples of type. Comprehension
4. Given scenarios containing type rating. Comprehension

PLANNING

→ Application-level training

- When trainees apply or recognize the application of concepts, principles and other generalizations, they have clearly gone beyond simple knowledge and comprehension.

PLANNING

→ Application-level training

- It is **unlikely that any delivery of training at an introductory course or basic principles** course will or should involve the application level of learning.

PLANNING

→ Application-level training

→ Example of training objective for a task

→ Apply the class rating and type rating in the endorsement of a licence.

PLANNING

→ Example of training for lecture method

- Title
- Strategy
- References
- Material/notes/handouts
- Allocated time
- Cognitive objective(s)
- Samples of observable behavior

PLANNING

→ Example of training for lecture method

- Title
- Strategy
- References
- Material/notes/handouts
- Allocated time
- Cognitive objective(s)
- Samples of observable behavior

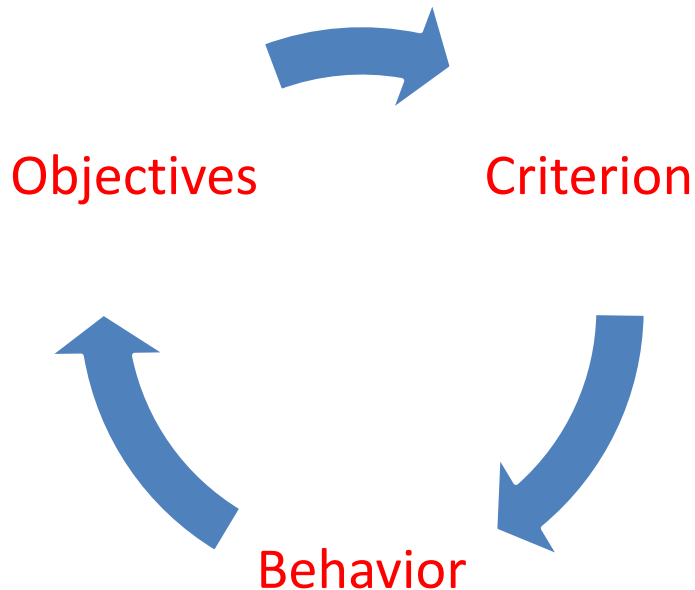
PLANNING

→ Example of training for D-P method

- Title
- Strategy
- References
- Material and equipment(s)
- Allocated time
- Cognitive objective(s)
- Samples of observable behavior

PLANNING

→ Example of training for D-P method



PLANNING

→ Example of training for D-P method

Criterion objectives

- A criterion objective is a word picture of what we expect trainees to do, the conditions they should be able to do it under, and the standards

PLANNING

→ Example of training for D-P method

Criterion objectives and Sample Behavior

- Samples of behavior are observable and measurable behavioral indicators that help us determine if the trainee has achieved our general LOL objective. Because we can not "see" *comprehend*, we use samplings of behavioral indicators to measure our instructional success. **LOL objectives and SOBs are typically used in educational settings where the trainees is participating in cognitive learning.**

PLANNING

→ Example of training for D-P method

Criterion objectives and Sample Behavior

- Both the SOB and the CRO are attempting to define the behavior we expect once the instruction is complete. The SOB is taking a cognitive and/or affective outcome and making it observable and measurable while the CRO is defining the expectations while performing a specific task under specified conditions.

PLANNING

→ Example of training for D-P method

Criterion objectives example

Performance	Conditions	Steps	Standard
Fasten seat belt	Buckle and shoulder harness	Loose the seat belt and adjust length	Seat belt fastened adequately tight Shoulder harness secured

**Delivery is always a two
ways process...**

...it must suite both ends



End of Module 11

Training Delivery Methods

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MODULE 12. TRAINING COST BENEFIT ANALYSIS

Giuseppe Sabatino

Synchronous Distance Learning – Virtual Classroom

June 22nd – 25th, 2020

DETERMINING THE RETURN



COSTs and BENEFITS

- It is very important to evaluate the benefits of the training and be able to put that in terms of numbers

COSTS and BENEFITS

- It would be wrong and detrimental to safety and taxpayers to put training exclusively on academic platform.

COSTS and BENEFITS

- Training must yield tangible results both in terms of saving, effectiveness and increase in business volume

COSTS and BENEFITS

- Training comes at a cost and therefore any organisation would be interested in knowing the return on investment (ROI).

COSTS and BENEFITS

- Organisations use different methods to assess the benefits of training and translating in numbers.....possibly some sort of direct or indirect profit

COSTS and BENEFITS

→ Some of the frequently used methods are ROI and Utility analysis.

COSTS and BENEFITS

- There are many costs that are associated with the training apart from the direct and apparent costs.

COSTS and BENEFITS

- There are costs incurred towards the training needs analysis, compensation of the training program designers, procurement of training material and various media like the computers, handouts, props, gifts and prizes, audio visuals etc.

COSTS and BENEFITS

- There is another category of costs incidental to the training session itself such as trainers fee / salary, facility costs / rental etc.

COSTS and BENEFITS

- There are costs involved with losing a man day of work (for those who are sent for training), travelling, boarding and lodging and training material that cannot be re-used in some other training program.

ROI

- Organisations spend huge amount of money on employee development, it is therefore very important to ascertain the benefits of training

ROI

- Different studies were conducted to evaluate the effectiveness of training programs. In one of the studies it was found out that sales and technical trainings gave better ROI compared to managerial training programs. At the present time there are no official studies that have calculated or estimated the R.O.I of training for CAAs or Government Organization other than Defense

ROI

→ The basic formula for calculating the ROI for training is as:

$$\text{ROI (in percent)} = \text{Program benefits} / \text{Costs} \times 100$$

ROI

- The basic formula for calculating the ROI for training, however relies upon the assessment of benefits, sometimes which requires that non financial benefits may be converted into financial benefits. This requires precision and the sources have to be credible.

UTILITY ANALYSIS

- Utility itself is a function of the duration up to which the training leaves an impact upon the trainee, the relative importance of the training program, the importance of the position or profile that receives training and the cost of conducting the training.

UTILITY ANALYSIS

- Programs conducted for top and middle management competencies tend to be high on retention/impact value where training programs for the front line staff tends to be low on the retention/impact value scale.

UTILITY ANALYSIS

- Utility analysis basically derives the effectiveness from analysing the change in the behaviour of the trainee and the positive financial implications of the same.
- This model is not widely applied because the deductions made are essentially subjective in nature.

BENEFITS FROM TRAINING

- There would be no benefits, even from the best planned training, unless there are clear job descriptions and objectives

BENEFITS FROM TRAINING

- One of the most obvious benefit for any organization is to have a workforce capable of adapting and flexible enough to cover more roles.
- This would turn into a net financial benefit as it can reduce the number of workforce needed.

BENEFITS FROM TRAINING

- A well defined job, task, and subtask will lead to define competencies which can have many overlapping items among several domains generating a net saving in training costs

BENEFIT FROM TRAINING

	AIR	OPS	ACW	ATM	ADR
K	Domain specific	NPA 2015-18	Domain specific	Domain specific	Domain specific
S	Auditing, Inspector role + responsibilities, Safety management, Risk mitigation, Data collection and analysis				
A	Listening, Discussing, Negotiating, Analysis and judgment, Combine information from multiple sources				
	Openness, Curiosity, Flexibility, Systemic orientation,				

BENEFITS FROM TRAINING

- Identifying competencies and training for them will also reduce the number of trainer(s) dedicated to training session
- In CAA(s) very often trainers are safety inspectors themselves which are badly needed to perform oversight and cannot be spared for training

COSTS OF TRAINING

- The process of describing the jobs, detailing their functions, and then tasks and sub-tasks
- Identifying the competencies
- Devising a master training
- Validate the training by subject matter experts
- Establish the recurrent training framework based on performances

This could be a long, painstaking work, which may require years. It is a project that has its own financial investment

TRAINING VS NO-TRAINING

- Another that should be used in the CBA (cost benefit analysis) is putting in relation two scenario(s)
 - 1° Training project executed and performed
 - 2° Do-nothing option

TRAINING VS NO-TRAINING

→ Especially in a very complex environment like that of the civil aviation industry using the ratio

$$\frac{\textit{Project Training ROI}}{\textit{Do – Nothing Current Costs}}$$

can be extremely usefull and data relevant

BENEFITS FROM TRAINING

- Clustering is another spin-off of training benefit derived from identifying job competencies and training for them

BENEFITS FROM TRAINING

- The concept of clustering is used in the context of operational suitability data (OSD) and evidence-based training (EBT).
- However, in the context of «oversight» it can be expanded beyond OSD and EBT.

BENEFITS FROM TRAINING

→ The concept of clustering of aircraft can be derived by using the certification basis

AIRCRAFT	
1	CS-22
2	CS-23/25
3	CS-27/29
4	CS-31

BENEFITS FROM TRAINING

→ The concept of clustering of aircraft can be derived by using the certification basis for CS-23/25

Power Plant		N° engines	MCTOM(kg)	
Reciprocating		SE		Up to 2000
Jet		ME		2000-5700
Turbofan				5700-45360
TurboProp				45360-136000
				Above 136000

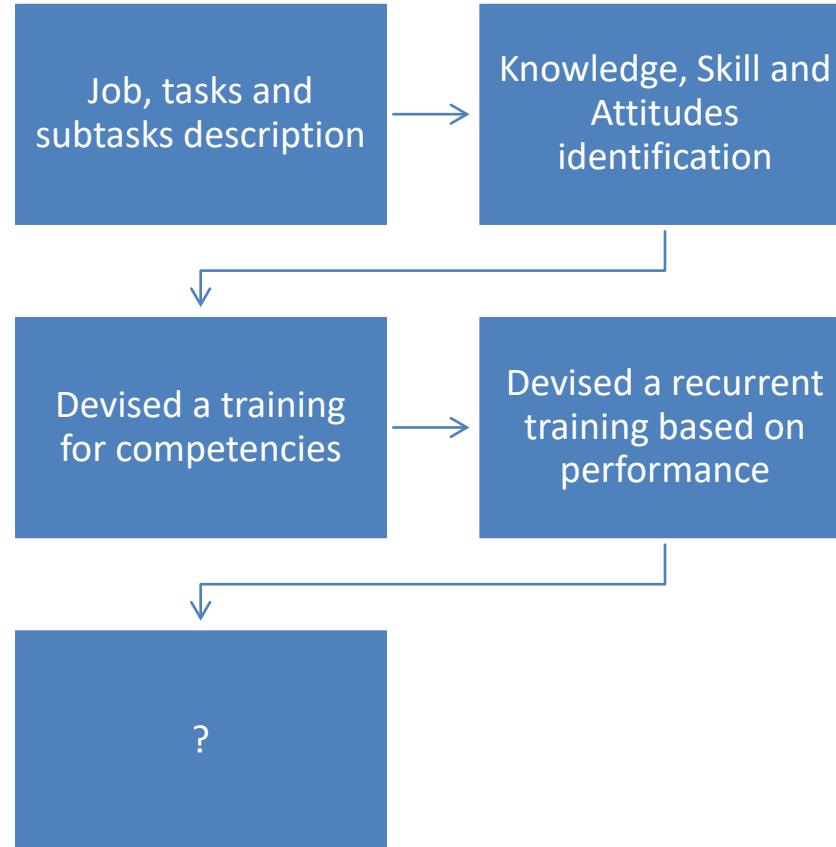
Training Cost Benefits Practical Case



BENEFITS FROM TRAINING

- Endorsing licences for Helicopter ratings was done by personnel exclusively dedicated
- Endorsing licences for Aeroplane ratings was also done by personnel exclusively dedicated

TRAINING BENEFIT



**A CBA should always be
projected for a long term
period...
...it is training people and
not a production line item**



End of Module 12

Training Cost Benefit Analysis

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Module 13 - Evaluation of Training Output

Salvador Alepuz Romaguera

Aeronautical Consultant. Airworthiness Expert

Synchronous Distance Learning – Virtual Classroom, June 22nd – 25th 2020

EU-South East Asia Aviation Partnership Project (EU-SEA APP)

*This project is funded by the European Union and implemented by
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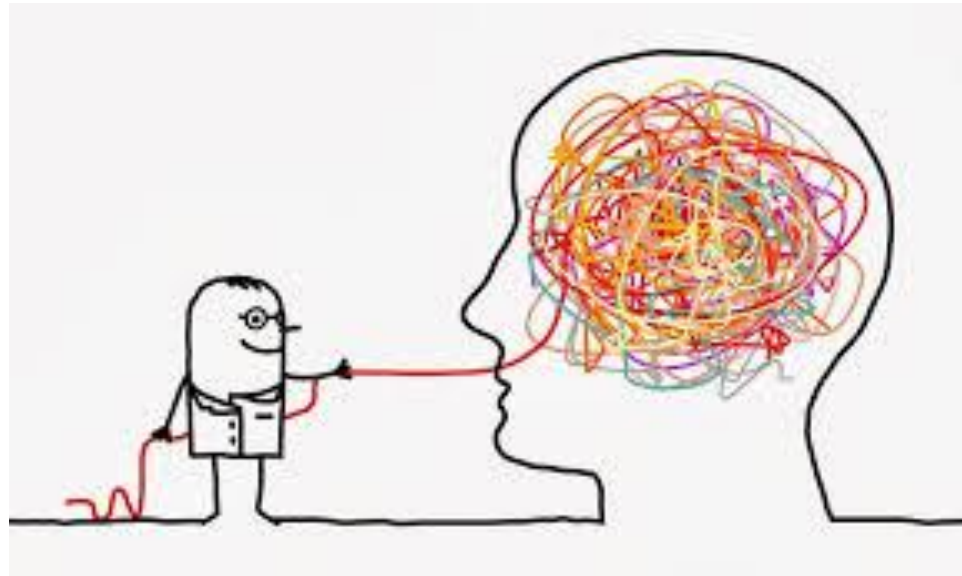
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Completion of the Training Action



Completion of the Training Action

- **Attendance control** . A control system, SW program, shall generate the attendance control list, permitting signing and writing down the attendance of each student day by day.
- **Evaluation of Students**. All training activities have exams for evaluation, normally a written one (although they can be on-line).



Completion of the Training Action

- **Training actions** linked to a course identified in a qualification profile or online training actions **should be evaluated** according to one of the following options:
 - **I. Final evaluation** through a unified exam, whose preparation, grade and scoring will correspond to the instructor/s or coordinator of the training action.

A student will be considered to have satisfactorily passed the training action if he has obtained a minimum score of more than 70%.

However, the instructor or coordinator may repeat the exam to those students who have not achieved this task.

In the event of not passing the exam a second time, and if the training action is mandatory or limiting for the student, the student will be called to the next edition and the TD will inform the hierarchical superior.



Completion of the Training Action

→ **II. Continuous evaluation.** In this evaluation method, the instructor or coordinator, where appropriate, may issue a Training Action Achievement Certification indicating the list of students who have successfully passed said evaluation.

In this case, the score considered for the purpose of issuing Certificates of Achievement is 7 (scale 1-10) or 70%.

- For the rest of the training actions (seminars, refreshment sessions lasting less than 6 hours ...) no evaluation will be necessary.
- However, the instructor / coordinator of the training action may carry out an evaluation whenever he deems it appropriate.



Training Certificates

- The TD may issue the following certificates:
 - **1. Achievement Certificate.** Attendance must be accredited for at least 70% of the duration of the training action and a Grade of Achievement of 7 or higher (scale from 1 to 10).
 - **2. Attendance Certificate.** It will be issued in the event that not having obtained a score of 7 or higher (scale of 1-10), attendance is credited for at least 70% of the duration of the training action.
 - **3. Instructor's Certificate.** A certificate will be issued for each instructor indicating the hours of participation.
 - CAA will keep a record of the certificates issued in the internal training.
 - **4. Certificate Of Training.** CAA personnel may request a certificate from the training received during their entire career from the Head of the Training Department. This certificate will include the training carried out by the applicant registered in CAA and that is defined in the Training Plan of the corresponding year.

Certificate of Qualification

→ Certificate of qualification.

- The employee, the Head of Unit or Inspection Coordinator, may request through the Website the qualification certificate.
- In the Qualification Certificate, shall be reflected the status of the employee qualification in the profiles that he/she has been assigned, as well as the associated limitations if there is any.



Certificate of Qualification

→ Certificate of qualification.

- In the Qualification Certificate, the status of the employee qualification in the profiles that he/she has been assigned shall be reflected, as well as the associated limitations if there is any.
- Qualified with limitations.
 - Sometimes, the profiles are very generic, and if only a specific course is needed, the person can be enabled with limitations.

The screenshot displays the AESA Intranet interface. At the top, there's a navigation bar with links like 'Inicio', 'Unidades', 'Documentos AESA', 'Análisis de Datos', 'Curso Intranet', 'Informática', 'Formación', 'Asuntos Generales', 'Salud laboral', 'Rel. Laborales y Acción social'. Below this, a search bar and a 'Todos los sitios' dropdown are visible. The main content area shows the 'Sitio de publicación de Informes de AESA' with a login field containing 'AVIACIONdbellido' and a 'Fecha de Referencia' of '09/10/2013'. A table titled 'ESTADO DE LOS PERFILES DE CUALIFICACIÓN A LA FECHA DE REFERENCIA: 09/10/2013' is displayed. The table has columns for 'Perfil', 'Calidad y Estandarización', 'F. Caducidad', and 'Estado'. The first row shows '30201 - PERSONAL ACTUARIO DE AUDITORIA' with a 'F. Caducidad' of '31/12/2015' and an 'Estado' of 'ACTUALIZADO'. Below this, a section titled 'FORMACIÓN OBLIGATORIA ASOCIADA AL PERFIL DE CUALIFICACIÓN' lists several courses with their respective 'F. Realización' and 'F. Caducidad' dates.

Perfil	Calidad y Estandarización	F. Caducidad	Estado
30201 - PERSONAL ACTUARIO DE AUDITORIA		31/12/2015	ACTUALIZADO

Código	Curso	F. Realización	F. Caducidad
C31504	SISTEMAS DE CALIDAD (15_CALIDAD)	07/09/2016	07/09/2016
C31505	TECNICAS DE AUDITORIA (15_CALIDAD)	29/04/2016	29/04/2016
C31505	TECNICAS DE AUDITORIA (15_CALIDAD)	29/04/2016	29/04/2016
C31504	SISTEMAS DE CALIDAD (15_CALIDAD)	07/09/2016	07/09/2016
C32001	LEGISLACIÓN BÁSICA (20_LEGISLACIÓN Y NORMATIVA)	31/12/2015	31/12/2015



Training Quality

→ **What are we going to see in this section?**

This section presents a brief overview of the key principles for quality control of Training:

- Key elements effective training.
- Oversight phases.
- Timescale effects.
- Evaluation criteria.
- Training documentation.
- EASA audits.

Training Quality

→ Key elements affecting training

There are four key elements in an effective training evaluation:

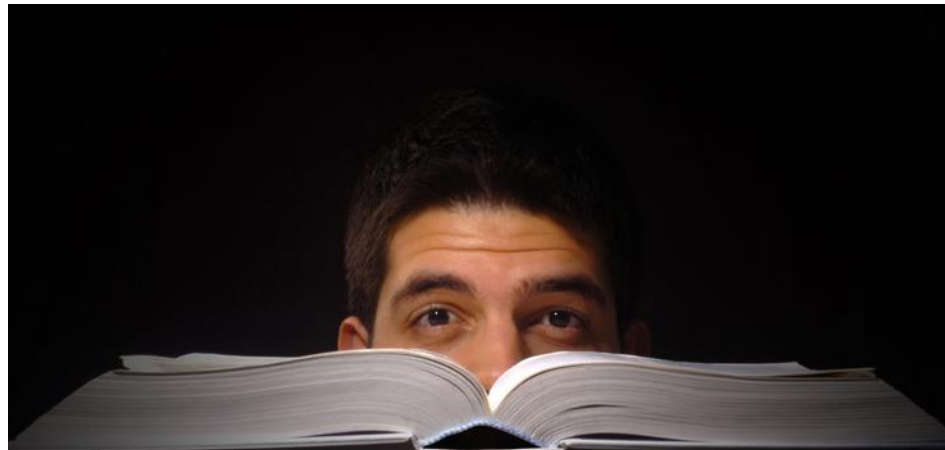
- Trainee's feeling to the course content.
- Trainees have met the learning objectives.
- Learning has transferred to the job.
- Performance effect the training has had on department and/or organization.

Training Quality

→ Key elements affecting training

Reaction

- Refers to the trainees' feeling with respect to the training programmed
- The trainees' feeling could be measured by questionnaires
- Requires the construction of a reliable, valid and standardized questionnaire



Training Quality

→ Key elements affecting training

Learning

→ The amount of accumulated knowledge and skill can be measured by some form of final exam or OJT (behavior is rated and observed).



Training Quality

→ Key elements affecting training

Behaviour

- Whether the newly acquired knowledge is being transferred into the trainee's daily work.
- For this purpose observational and interviewing techniques can be used to assess a trainee's performance on the job.



Training Quality

→ Key elements affecting training

Results

Whether the training programme was beneficial at the organizational level. After all, there is no sense in introducing a new training programme on a wide scale if the costs are too high in relation to the additional benefits it provides.



Training Quality

→ Key elements affecting training

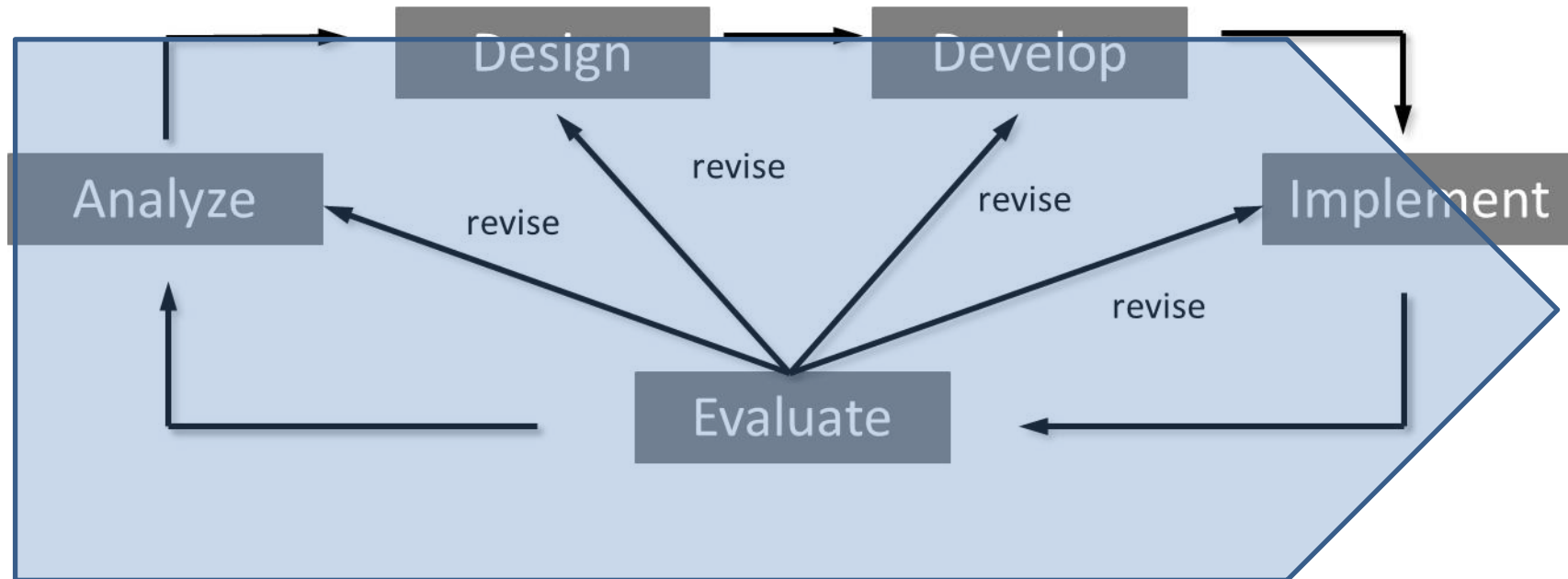
KEY ELEMENTS TO OVERSIGHT	MEASUREMENT TECHNIQUE
Reaction	Trainee questionnaires surveys, interviews, and reports
Learning	National certification tests Quantitative performance evidence
Behaviour	Observational and interviewing techniques OJT
Results	Judging people OJT observed



Training Quality

→ Training phase oversight.

Revision must cover all Training phases.



Training Quality

→ Training phase oversight.

Analyse

→ Scope, training effect on different levels.

- Individual subject to training.
- Team/department.
- Organization.



Training Quality

→ Training phase oversight.

Analyse

→ Organizational scope:

- Legal Framework.
- Industrial environment to be oversight.
- CAA's Structure.
- CAA's Safety Strategies.



Training Quality

→ Training phase oversight.

Analyse

→ Qualification standards.

- Qualification Profiles.
- Definition & revision.
- Formalization and implementation.



Training Quality

→ Training phase oversight.

Design

→ Training Standards.

→ Training Standard Definition, revision, formalization and implementation.

→ Courses design: objective, content.



Training Quality

→ Training phase oversight.

Design / Development

→ Trainers.

→ Training materials.

→ Means.

→ Practices, On the Job Training.

→ Budget.

→ Executed budget.

→ Budget deviations.

→ External training.

→ External Organizations.



Training Quality

→ Training phase oversight.

Implement

→ Course execution.

→ Course evaluation.

→ Trainees evaluation.

→ Attendance.

→ Examinations.

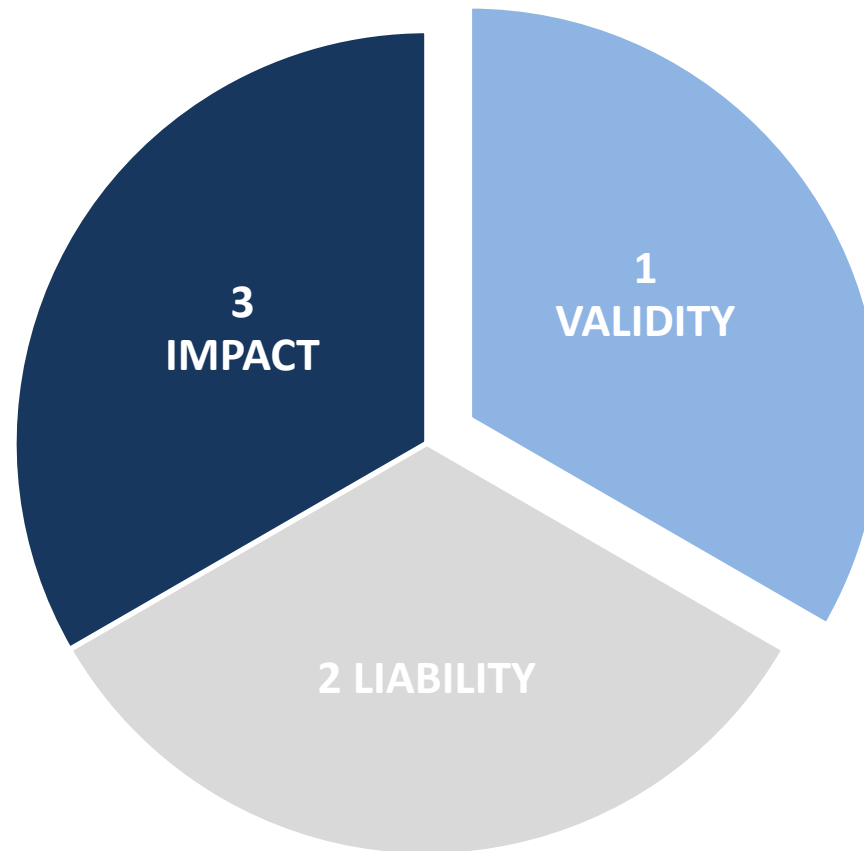
→ Certificates.

→ Qualification profile update.



Training Quality

→ Evaluation criteria.



Training Quality

→ Trainees evaluation.

Validity. The measure is focused on the subject we are interested in.



Training Quality

→ Trainees evaluation.

Liability. The means we utilized to measure are proved and standardized, to avoid differences in evaluation depending on: individual, organizational or locational circumstances.



Training Quality

→ Trainees evaluation.

Impact. The effect of the course on jobs or organization is the desired.



Training Quality

→ Timescale effects .

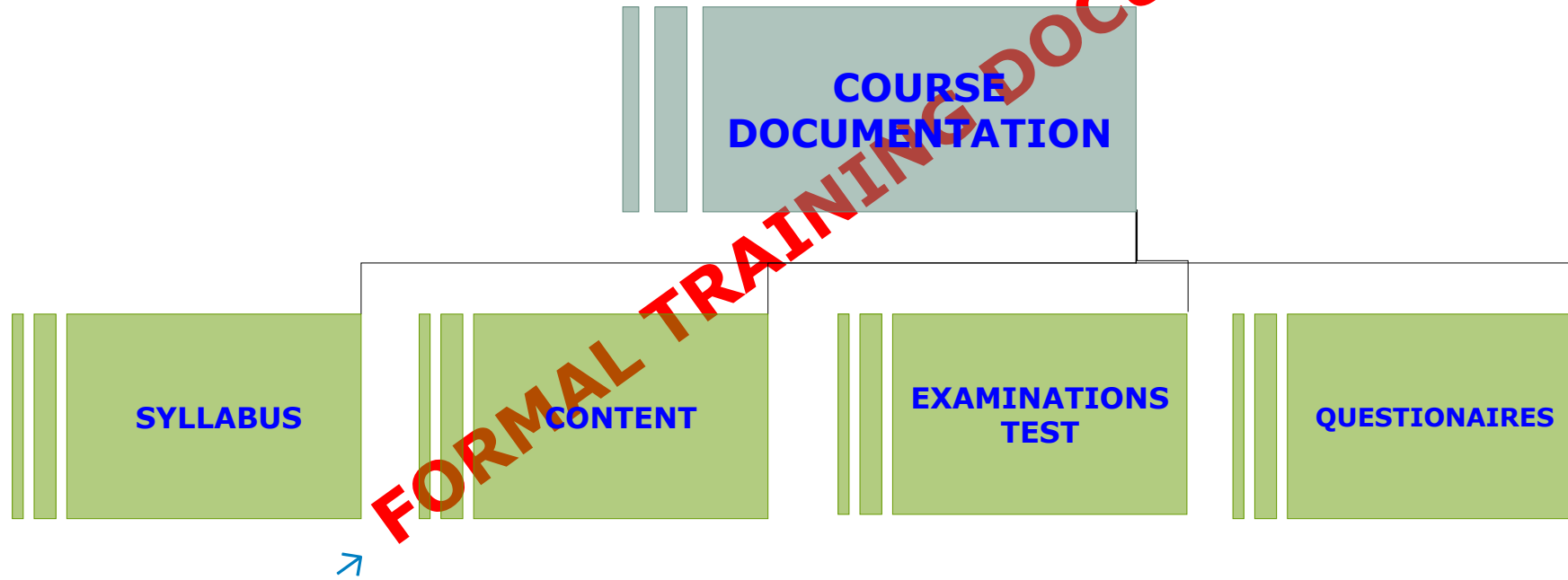
Timescale effects induced by the training:

- short-term.
- middle-term.
- long-term effects.



Training Quality

→ Training Documentation.

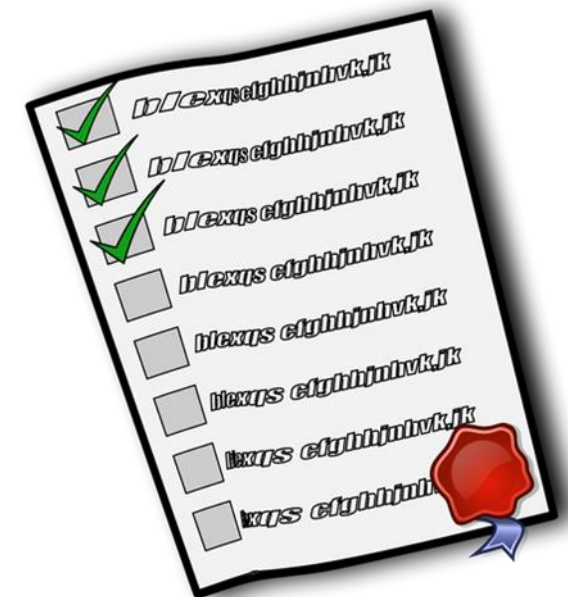


Training Quality

→ Training Documentation.

Documentation to be registered

- Course documentation.
- Trainees evaluation.
- Trainees feeling questionnaires.
- Certificates.
- Attendance.



Training Quality

→ Training Documentation.

Questionnaires on Trainees feeling.

Types:

- Hard copy questionnaires.
- Electronic questionnaires.

Training Quality

→ Training Documentation.

Evaluation of trainee.

For each training the requirements to consider the student attended successfully are:

→ Attendance.

→ Achievement.

→ Validity.

→ Liability.

→ Impact.



Training Quality

→ Training Documentation.

Trainee and Diplomas/Certificates.

At minimum shall include:

- Objectives.
- Syllabus.
- Organization.
- Place.
- Date.
- Hours.



Training Quality

→ Training Documentation.
Diplomas/Certificates.

Types of diplomas or certificates:

- Certificate of Achievement.
- Certificate of Attendance.
- Certificate of instructors for the instructors.

Training Quality

→ Closure of the training activity.

- Updating of training records: students and instructor.
- Collecting and updating related information and documentation.
- Certification only for those meeting the criteria of assistance and achievement.

Training Quality

→ External audits.

Training Departments are usually submitted to external audits.

EASA includes by Procedure an initial point, in all standardization audits, concerning Qualification Profiles definition and training of AESA's staff compliance.

The scope of the audit covers:

- Initial and Continuous Airworthiness.
- Operations.
- Licensing.
- Ramp inspections.
- Human resources.

Items audited are previously identified.

Training Certificate - Example

	GOBIERNO DE ESPAÑA	MINISTERIO DE FOMENTO	

CERTIFICADO DE FORMACIÓN

TRAINING CERTIFICATE

" SAFETY MANAGEMENT SYSTEM (SMS) "

El presente Certificado de Reconocimiento se ha emitido a:

This Certificate of Recognition is issued to:

ALEPUZ ROMAGUERA, SALVADOR

Que ha asistido con aprovechamiento al Curso mencionado, el cual ha tenido lugar entre los días **9 y 11 de Septiembre de 2013** con una duración total de **18 horas**.

Attending successfully the mentioned Course, being held from 9 to 11 September 2013, with a total of 18 hours.

In **MADRID, 11 of September of 2013**

AESA HEADQUARTERS



AESA TRAINING
The Head of Training Division

13/C330005-1/28

Training Certificate - Example

Objectives:

DEVELOP THE KNOWLEDGE AND APPLICATION OF THE BASIC CONCEPTS OF OPERATIONAL SAFETY MANAGEMENT, AS WELL AS THE UNDERSTANDING OF THE INTERNATIONAL STANDARDS RELATED TO THE MANAGEMENT OF OPERATIONAL SAFETY CONTAINED IN ANNEX 19 TO THE CHICAGO CONVENTION.

Content:

- 1: Concept
- 2: Policy and Objectives
- 3: Risk Management
- 4: Safety guarantee
- 5: Safety Promotion
- 6: The human factor

13/C330005-1/28

F-DEA-FOR-11/3.0

Training Certificate - Example

Doubts ?



End of Module 13

Evaluation of Training Output

Thank you very much for your attention!

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Your safety is our mission.

An Agency of the European Union 