EUROPEAN ORGANISATION
FOR THE SAFETY OF AIR NAVIGATION

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EATM Training Progression and Concepts

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Abstract

The document classifies the training phases for Air Traffic Controllers (ATCOs) and Air Traffic Safety Electronic Personnel (ATSEP). It defines the concepts used in the specification of training and in the supports to training design.

Keywords

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Contact Person	Tel	Unit
Michel PISTRE	+352 43 60 61 511	Training Development and Harmonisation (TDH) Unit

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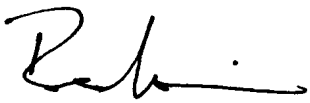
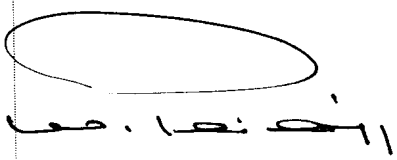
EATMP Infocentre
EUROCONTROL Headquarters
96 Rue de la Fusée
B-1130 BRUSSELS

Tel: +32 (0)2 729 51 51
Fax: +32 (0)2 729 99 84
E-mail: eatmp.infocentre@eurocontrol.int

Open on 08:00 - 15:00 UTC from Monday to Thursday, incl.

DOCUMENT APPROVAL

The following table identifies all management authorities who have successively approved the present issue of this document.

AUTHORITY	NAME AND SIGNATURE	DATE
Chairman HRT Training Focus Group (TFG)	Michel Pistre M. PISTRE	25/02/2004
Manager EATM Human Resources Programme (HRS-PM)	 M. BARBARINO	01/03/2004
Chairman EATM Human Resources Team / Programme Steering Group (HRT/PSG)	 A. SKONIEZKI	01/03/2004
Senior Director EATM Service Business Unit (SD)	 W. PHILIPP	04.03.04

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EXECUTIVE SUMMARY

The document classifies the training phases for Air Traffic Controllers (ATCOs) and Air Traffic Safety Electronic Personnel (ATSEP). It defines the concepts used in the specification of training and in the supports to training design.

As far as possible the phases and concepts have been defined in such a way that they apply to both training populations and could be easily extended to other ATM training populations. However, customisation is sometimes useful: definition of unusual situations differs between ATCO and ATSEP, and examples illustrating action verbs are different.

A bibliography, further reading, a list of the abbreviations and acronyms used in this document, and the names of those who contributed to its development are provided at the end of the publication.

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1. INTRODUCTION

1.1 Background

The main objective of the EATM(P) Human Resources Programme (HRS), Stage 1 (see EATMP, 2000a), is to further develop an ATM-specific human resources / human factors toolbox (concepts, methods and tools), which will:

- enable an adequate number of qualified staff to provide a harmonised and consistent service delivery;
- ensure the best use of new technology;
- provide for a smooth transition towards the evolving European ATM systems.

HRS Programme Stage 1 includes the Training Sub-Programme (TSP), defined as follows:

> *To provide ANS Providers for all ATM areas with training material, methods and tools, in order to enable a common minimum standard of training which will evolve to meet the future introduction of system changes and will enable the implementation of regulatory requirements for ATM services personnel licensing.*

1.2 Training Deliverables

Under the auspices of the EATCHIP Programme and later the EATM(P) Programme[1], the Human Resources Team (HRT) delegated responsibility for the Air Traffic Services (ATS) training to its Training Sub-Group (TSG), today known as the 'Training Focus Group (TFG)'. One of the outcomes of this group consists of several training deliverables (see complete list in Annex 'Further Reading').

1.3 Purpose

This document is aimed at supporting the reader of any of the training documents. It has been produced at the request of TFG with the intention to sum up and supersede the information that was scattered in several documents.

[1] In 1999 the 'European Air Traffic Control Harmonisation and Integration Programme (EATCHIP)' was renamed the 'European Air Traffic Management Programme (EATMP)'. Today it is known simply as 'European Air Traffic Management (EATM)'.

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2. ATCO TRAINING PROGRESSION

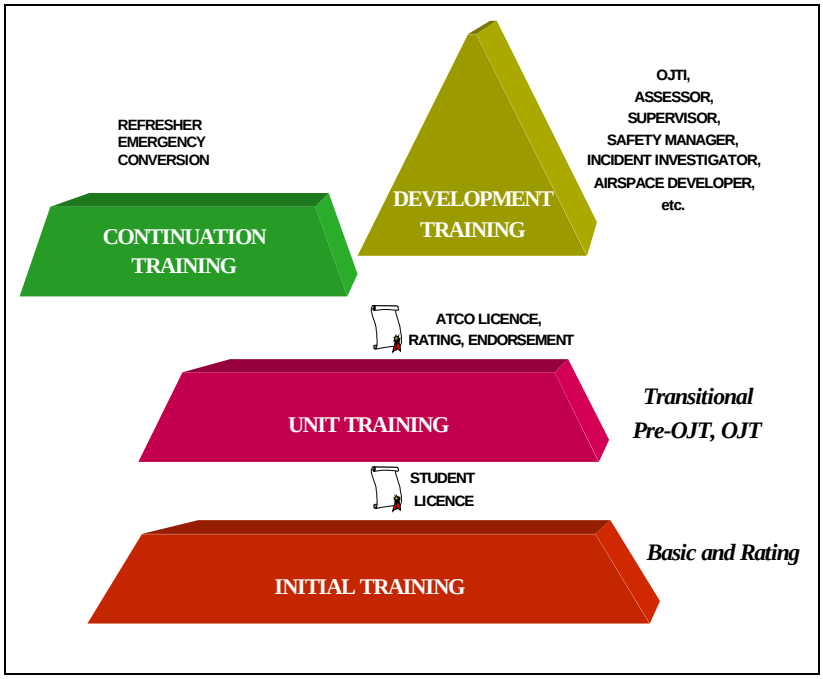

Figure 1: Progression of ATCO training

2.1 Initial Training

Training including technical subjects and ATC theory and simulator practice. The object of initial training is to prepare an *ab initio* for training at an ATC unit. It includes two phases (basic and rating) leading to a student licence: Rating training might also be provided as training for conversion to another rating.

⇨ **Basic training**

Training designed to impart fundamental knowledge and skills to enable *ab initio* air traffic controllers to progress to specialised ATC training.

⇨ **Rating training (training in the rating discipline)**

Specialised ATC training to provide knowledge and skills related to a job category and appropriate to the discipline to be pursued in the ATS environment.

2.2 Unit Training

Training comprising transitional training, pre-OJT and OJT leading a learner to obtaining an air traffic controller licence, with appropriate rating and with appropriate rating endorsements and unit endorsements:

⇨ **Transitional training**

Phase following initial training during which site-specific theoretical knowledge and understanding will be transferred to the student air traffic controller and/or trainee air traffic controller using a variety of methods and during which skills will be developed through the use of site-specific simulations.

⇨ **Pre-On-the-Job Training (Pre-OJT)**

Phase of locally based training during which extensive use of simulation using site-specific facilities will enhance the development of previously acquired routines and abilities to an exceptionally high level of achievement.

⇨ **On-the-Job Training (OJT)**

The integration in practice of previously acquired job-related routines and skills under the supervision of a qualified On-the-Job-Training Instructor (OJTI) in a live traffic situation.

2.3 Continuation Training

Training given to licensed or certificated personnel designed to augment existing knowledge and skills. It includes refresher, emergency and conversion training.

⇨ **Refresher training**

Refresher training is designed to review, reinforce or upgrade existing knowledge and skills (including team skills).

⇨ **Emergency training**

Training that shall be given to all controllers on a regular basis. It includes training in emergencies, in unusual situations and in degraded systems. Most of this training will be site-specific:

Emergency

A serious, unexpected and often dangerous situation requiring immediate action.

Unusual situation

A set of circumstances which are neither habitually nor commonly experienced. The essential difference with an emergency is that the element of danger or serious risk is not necessarily present in an unusual situation.

Degraded systems

Unusual situations that are the result of a system failure or malfunction.

⇨ **Conversion training**

Training designed to provide knowledge and skills appropriate to a change in either job category (new rating discipline, rating endorsement or unit endorsement), environment (new procedures) or system (system upgrade or change).

2.4 Development Training

Training designed to provide additional knowledge and skills demanded by a change in job profile, e.g. new licence endorsement (OJTI) or any other career development like assessor, supervisor, safety manager, incident investigator, airspace developer, training manager, traffic flow manager, etc.

2.5 Denomination of the Learner

'Learner' is the generic term for the person performing a learning activity without any reference to his/her statute.

In the case of ATCO training the specific names according to the training phase are:

- participants to initial training are called '*ab initio'* (they do not hold a student licence);
- participants to unit training are called 'student air traffic controllers' when they hold a student air traffic controller licence and 'trainees' when they hold an ATC licence;
- participants to continuation training or development training are called 'trainees' (they hold an ATC licence).

Note: The scheme and definitions apply in a simple way to a learner entering the system. In the cases of conversion or of multiple rating training, the scheme is more complex.

When the learner is converting from one rating to another, he/she will be enrolled in a rating training when he/she already holds an ATC

licence, so he/she will be a trainee. This rating training is considered as conversion (and not as initial training).

When the learner is enrolled in an additional rating training after having successfully completed one rating training, he/she already holds a student licence and no ATC licence, so he/she will be a student.

For simplification purpose ‘Learner’ will be systematically used.

3. ATSEP TRAINING PROGRESSION

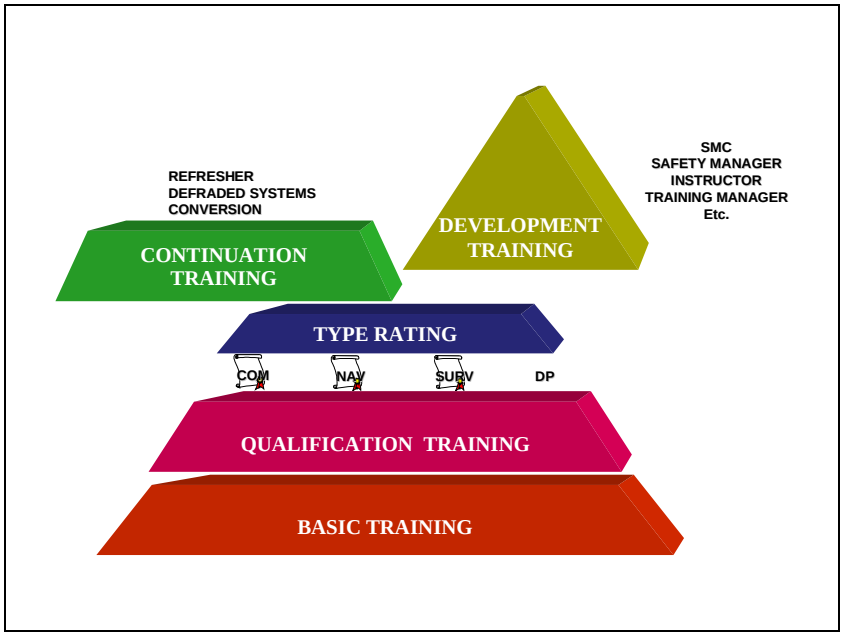

Figure 2: Progression of ATSEP Training

3.1 Initial Training

Training preceding type rating. It includes basic and at least one of the four modules of qualification training.

⇨ **Basic training**

Fundamental knowledge and skills appropriate to the discipline to be pursued in the Communication Navigation and Surveillance / Air Traffic Management (CNS/ATM) environment.

⇨ **Qualification training**

Job category related knowledge and skills appropriate to the discipline to be pursued in the CNS/ATM environment.

Four disciplines have been identified through the four corresponding qualifications: Communication, Navigation, Surveillance and Data Processing.

3.2 Type Rating

Equipment/system-related knowledge and skills leading to recognised competency. It includes OJT.

⇨ **On-the-Job Training (OJT)**

The integration in practice of previously acquired job-related routines and skills under the supervision of a qualified On-the-Job-Training Instructor (OJTI) in an operational environment.

3.3 Continuation Training

Training given to personnel designed to augment existing knowledge and skills and/or to prepare for new technologies. It includes refresher, emergency and conversion training. (Refresher and emergency training are sometimes named ‘recurrent training’.)

⇨ **Refresher training**

Refresher training is designed to review, reinforce or upgrade existing knowledge and skills (including team skills).

⇨ **Degraded systems training**

Training including training in unusual situations, in degraded systems and, if suitable, in emergencies. Most of this training will be site-specific or may make use of incidents or accidents analysis:

Emergency

A serious, unexpected and often dangerous situation requiring immediate action.

Unusual situation

A set of circumstances which are neither habitually nor commonly experienced. The essential difference from an emergency situation is that a volatile situation exists and if an appropriate action is not taken, a major failure or emergency situation will result.

Degraded systems

Unusual situations that are the result of a system failure or malfunction leading to a loss of system redundancy or service elements.

⇨ **Conversion training**

Training designed to provide knowledge and skills appropriate to a change in either job category (new discipline or new type rating), environment (new maintenance or other procedures) or system (system upgrade or change of system, new project).

3.4 Development Training

Training designed to provide additional knowledge and skills demanded by a change in job profile, e.g. system monitoring and control, safety manager, instructor, training manager, or any other career development.

3.5 Denomination of the Learner

'Learner' is the generic term for the person performing a learning activity without any reference to his/her statute.

In the case of ATSEP training, 'learner' will be systematically used as there is a large variety of specific names according to the training phase and the country.

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4. CONCEPT OF OBJECTIVE-BASED TRAINING

4.1 Training objectives

A training objective is a description of what is expected of a learner after training. The description is accurate and measurable.

In EATM training documentation, we refer to several categories of objectives:

- **Objective:** A clear statement based on a description of the learner performance (corpus) and the limits of this performance (content). The corpus always includes an action verb to ensure that the outcome is observable and that the difficulty level is stated according to a defined taxonomy (see 4.2).

- **General objective** (or goal): Describes the direction to move in rather than a detailed quantitative objective.

- **Performance objective**: A clear and unambiguous statement of what a student is expected to do (behaviour or **Performance**) with the minimum level of acceptable performance (**Standard** in terms of quality, quantity and time allowed for completion) and conditions under which the performance is to be carried out (**Conditions)**: **PSC**.

  The performance objective clearly establishes a link between the training objective and the method to assess if this training objective has been reached.

The training content is divided into **subjects**, themselves divided into **topics** that are in turn subdivided into **sub-topics**. This structure is used to create and classify the objectives: one general objective is linked to each subject and one or several objectives are linked to each sub-topic. Optionally a main objective is linked to a topic.

4.2 Taxonomy

A taxonomy is a classification based on explicit principles. The purpose of taxonomies in the training domain is to classify training objectives.

4.3 Levels

Five levels are identified, numbered 1 to 5 plus an initial level (named 0) of pure information. They are defined as follows:

Level 0 'To be aware of'.

Level 1 Requires a basic knowledge of the subject. It is the ability to remember essential points; the learner is expected to memorise data and to restore it.

Level 2 Requires an understanding of the subject sufficient to enable the learner to discuss intelligently. The individual is able to represent for himself or herself certain objects and events, and to act upon these objects and events.

Level 3 Requires a thorough knowledge of the subject and the ability to apply it with accuracy. The learner should be able to make use of his/her repertoire of knowledge to develop plans and activate them.

Level 4 The ability to establish a line within a unit of known applications following the correct chronology and the adequate method to resolve a problem situation. This involves the integration of known applications in a familiar situation.

Level 5 The ability to analyse new situations in order to elaborate and apply one or other relevant strategy to solve a complex problem. The defining feature is that the situation is qualitatively different to those previously met, requiring judgement and evaluation of options.

4.4 Definition of Action Verbs

Defining action verbs becomes increasingly difficult as the level increases for several reasons:

(i) Higher levels (4, 5 and even 3) are the culmination of many actions, and can only be described by either a breakdown into component actions or by a few high-level words, which are not exclusive to a particular level.

(ii) Making some verbs belong to several levels could compound this. This solution was rejected in order to keep things simple for the operational use (one verb - one level).

(iii) The main difference between levels 4 and 5 is novelty (qualitative) of the problem.

(iv) As each level subsumes those previous to it, as it is hierarchical, then you must naturally start running out of words.

The list is not complete, but a guideline only. In the future ATM-specific terms known to refer to that level of performance can be added. The examples chosen to illustrate the verbs are specific to ATCO or ATSEP in this document. In other documents, examples may be chosen to match the learner population.

4.5 Action Verbs

4.5.1 Definition of verbs – Level 1

Level 1:	Requires a basic knowledge of the subject. It is the ability to remember essential points; the learner is expected to memorise data and to retrieve it.

Verb	Definition	Example	L
			(L = Level)
Define	State what it is and what its limits are; state the definition	Define the global performances for CVOR and DVOR; Define the term ‘alerting service’	1
Draw	Produce a picture, pattern or diagram	Draw the block diagram of the transmitter; Draw a holding pattern	1
List	Say one after the other	List the main software development processes used in industries; List the main structure components of an aircraft	1
Name	Give name of objects or procedures	Name who is designated to authorise changes in operational data; Name some components on a graphic	1
Quote	Repeat of what is written or said to underline	Quote ICAO definition of ATC service	1
Recognise	To know what it is because you've seen it before	Recognise on a diagram all the elements of the ADS; Recognise the information disseminated through AFTN like NOTAM, SNOWTAM	1
State	Say or write in a formal or definite way	State who are the local telecom providers and the service characteristics; State the major wind systems on earth	1

4.5.2 Definition of verbs – Level 2

Level 2:	Requires an understanding of the subject sufficient to enable the learner to discuss intelligently. The individual is able to represent for himself or herself certain objects and events in order to act upon these objects and events.

Verb	Definition	Example	L
			(L = Level)
Characterise	To describe the quality of features in something	Characterise consequences of an OS upgrade; Characterise various items of ATC equipment	2
Consider	To think carefully about it	Consider institutional issues and service provider responsibilities; Consider radar range	2
Demonstrate	Describe and explain; logically or mathematically proves the truth of a statement	Demonstrate the possible use of GBAS for approach and landing; Demonstrate how the earth is projected as a map	2
Describe	Say what it is like or what happened	Describe the architecture of the ATN network; Describe the methods by which telecommunication regulations are implemented	2
Differentiate	Show the differences between things	Differentiate on a diagram all the possible elements of the ADS C system; Differentiate between the various relevant charts	2
Explain	Give details about something or describe so that it can be understood	Explain the principles of non-blocking switches; Explain the purpose and function of ICAO	2
Report	Give an account, provide a detailed statement about an occurrence or situation	Report on the performance of a maintenance task	2
Take account of	Take into consideration before deciding	Take wind influence into account when calculating a ground speed	2

4.5.3 Definition of verbs – Level 3

Level 3:	Requires a thorough knowledge of the subject and the ability to apply it with accuracy. The learner should be able to make use of his/her repertoire of knowledge to develop plans and activate them.

Verb	Definition	Example	L
			(L = Level)
Act	Carry out, execute		3
Apply	Use something in a situation or activity	Apply the appropriate model to the analysis of a relevant aviation system. Apply national requirements in abnormal situations	3
Appreciate	To understand a situation and know what is involved in a problem-solving situation, to state a plan without applying it	Appreciate criticality of the conditions; Appreciate the necessary for coordination. The learner says that the coordination will be done and with whom, he/she does not perform the actual coordination	3
Assist	Help somebody to do a job by doing part of it	Handle the operational HMI and assist in the tuning of the screens; Assist the pilot	3
Calculate	To discover from information you already have by arithmetic; to think about a possible cause of action in order to form an opinion or decide what to do	Calculate the values of the elements of a simple generic antenna system; Calculate transition level	3
Check	Make sure the information is correct (satisfactory)	Check the operational status of the monitor system; Check and maintain the integrity of working position	3
Choose	Select out of number, decide to do one thing rather than another	Choose the appropriate type of line for a given specific application; Choose which aircraft should be vectored	3

Definition of verbs – Level 3 (continued)

Verb	Definition	Example	L
			(L = Level)
Collect	Assemble, accumulate, bring or come together		3
Conduct	Lead, guide	Conduct coordination	3
Confirm	Establish more firmly, corroborate	Confirm sequence order	3
Decode	Turn into ordinary writing, decipher	Decode a transponder message; Decode weather reports and forecast	3
Encode	Put into code or cipher		3
Estimate	Form an approximate judgement of a number, form an opinion	Being given an aircraft route, estimate thanks to a software package or/and GPS receiver the availability of the constellation; Estimate distance between two points	3
Execute	Perform action		3
Extract	Copy out, make extracts from, find, deduce	Extract data from a flight plan	3
Identify	Associate oneself inseparably with, establish the identity	Identify and locate data transmission problems; Identify a radar blip	3
Inform	Inspire, tell	Inform the planning controller	3
Initiate	Begin, set going, originate	Initiate a coordination procedure	3
Input	Enter in the system	Input data	3
Issue	Send forth, publish	Issue ATC clearance	3
Maintain	Carry on, keep up, refresh	Maintain flight data display	3
Measure	Ascertain extent or quality of (thing) by comparison with fixed unit or with object of know size	Measure the typical parameters of lines; Measure cross modulation in radio antenna system	3

Definition of verbs – Level 3 (continued)

Verb	Definition	Example	L
			(L = Level)
Monitor	Keep under observation	Monitor traffic	3
Notify	Make known, announce, report	Notify runway in use	3
Obtain	Acquire easily, without research	Obtain aeronautical information	3
Operate	Conduct work on equipment	Operate test tools to analyse the system; Operate electronic data transfer equipment	3
Pass	Move, cause to go, transmit	Pass essential traffic information without delay	3
Perform	Carry into effect, go through, execute	Perform typical measurements on a receiver; Perform coordination effectively	3
Record	Register, set down for remembrance or reference	Record information by writing effectively	3
Relay	Arrange in, provide with, replace by ...	Relay pilot message	3
Respond	Make answer, perform answering or corresponding action	Respond to the loss of aircraft radar identification	3
Scan	Continuously observe rapidly, sequentially and selectively in order to extract relevant data	Scan data display	3
Transfer	Hand over	Transfer information to receiving controller	3
Update	Refresh, make up-to-date	Update	3
Use	Employ for a purpose, handle as instrument, put into operation	Use the ICAO documentation to explain the principles related to signals in space	3
Verify	Establish truth of	Verify the impact of the requirements on the location and the type of the ground station; Verify, identify	3

4.5.4 Definition of verbs – Level 4

Level 4:	Ability to establish a line within a unit of known applications following the correct chronology and the adequate methods to resolve a problem situation. This involves the integration of known applications in a familiar situation.

Verb	Definition	Example	L
			(L = Level)
Acquire	Gain by oneself and for oneself, obtain after research	Acquire relevant aeronautical information	4
Adjust	Change to a new position, value or setting	Adjust antenna system	4
Allocate	Assign, devote	Allocate the responsibility of separation during transfer	4
Analyse	Examine minutely the constitution of	Analyse the coverage of the radio system; Analyse traffic	4
Assign	Allot as a share, make over	Assign take off number	4
Coordinate	Bring part into proper relation	Coordinate with RCC	4
Comply	Act in accordance with	Comply with rules	4
Delegate	Commit authority to somebody	Delegate separation in case of aircraft continuing visually	4
Design	Conceive mental plans for	Design a NDB station according to operational requirements; Design… appropriate clearances and instructions	4
Detect	Discover existence of	Detect disturbances; Detect deviation from track	4
Ensure	Make safe, make certain	Ensure the agreed course of action in carried out	4

Definition of verbs – Level 4 (continued)

Verb	Definition	Example	L
			(L = Level)
Expedite	Assist the progress of, do speedily		4
Integrate	Combine into a whole, complete by addition of parts	Integrate adequately components into a LAN; Integrate a transferred aircraft into the controlled traffic	4
Justify	Show the rightness of a choice or of an option	Justify and theorise the DME/N versus the DME/P; Justify and theorise the DVOR	4
Manage	Handle, wield, conduct	Manage aerodrome surface movements	4
Organise	Give orderly structure to, frame and put into working order	Organise arrival sequence	4
Predict	Forecast	Predict evolution of a conflict situation	4
Provide	Supply, furnish	Provide separation	4
Relate	Establish link with	Relate a pressure setting to an altitude	4

4.5.5 Definition of verbs – Level 5

Level 5:	Ability to analyse new situation in order to elaborate and apply one or other relevant strategy to solve a complex problem. The defining feature is that the situation is qualitatively different to those previously met, requiring judgement and evaluation of options.

Verb	Definition	Example	L
			(L = Level)
Appraise	Estimate, determine the benefit	Appraise the interest of a traffic management option	5
Assess	Estimate value or difficulty, evaluate	Assess flight inspection results; Assess workload	5
Balance	Weigh (a question, two arguments, etc., against each other)	Balance two control actions	5
Calibrate	Correct and adjust to enable the provision of accurate data	Calibrate the NDB system according to flight inspection	5
Discuss	Investigate by reasoning or argument	Discuss the distribution of integrity information through GALILEO; Discuss the impact of regulation	5
Evaluate	Ascertain amount of, find numerical expression for	Evaluate workload	5
Extemporise	Produce without preparation, improvise	Extemporise phraseology in abnormal situations	5
Imagine	Form mental image of, conceive	Imagine possible actions to cope with unusual situations	5
Interpret	To decide on something's meaning or significance when there is a choice	Interpret fault report based on various test tool measures; Interpret ICAO annexes	5
Resolve	Solve, clear up, settle	Resolve conflict	5

Definition of verbs – Level 5 (continued)

Verb	Definition	Example	L
			(L = Level)
Review	Survey, look back on	Review previous clearance according to the latest aircraft relative positions	5
Select	Pick out as best or most suitable	Select the runway in use	5
Solve	Find answer to	Solve separation problems	5
Theorise	Extract general principles from a particular experience	Theorise the principles of ILS; Theorise the resolution of conflict between a slow and a fast aircraft	5
Troubleshoot	Trace and correct faults	Troubleshoot wrong bearing indications of a VOR	5
Validate	Make valid, ratify, confirm	Validate one radar vectoring option to expedite the traffic	5

5. CONCEPT OF TRAINING EVENTS

5.1 Introduction

The objectives indicate what is expected from the learner. How to train him/her to achieve the objectives is indicated in the training plans through the choice of training events.

Training events are the elementary unit of a training plan. Through their type the training designer indicates to the instructor which method and media are the most appropriate to teach a given objective. The choice of main media and method does not exclude the use of additional media and methods within the same training event, provided these suit its quality and efficiency.

The training plans are of help in the preparation of training and to plan resources. However, their implementation requires of the instructor flexibility, interpretation capacity and a good sense of adaptation.

The training events defined in 5.2 and listed in 5.3 include those currently used in Common Core Content for ATCO training. This list is not exhaustive and should benefit from validation and upgrading to incorporate best practices and latest didactical or technological progress. The list should be used as a guideline for the development of future training plans. It will then be necessary to adapt it to the new requirements and specific target population, i.e. ATSEP.

Definitions for the training methods, media, learning rates and modes of delivery listed in 5.3 can be found in 5.4.2 to 5.4.5. For further detail the reader shall refer to the document entitled 'Specifications on Training Methods and Tools' (EATMP, 2000b – T16). It is to be noted that some topics have been added or updated since the publication of this reference document.

As essential principles it is acknowledged that:

- During a single training event several methods or media might be used. In the plans the one indicated is the most significant (for instance, a simulation includes briefing but the only indicated method is simulation) or the most dependent on the adequate equipment (for instance, in a lesson both paper documents and projector displaying computer presentation are used; only Visual Aid (Vsl) is indicated as a media; Text (Txt) is not mentioned).

- Using his judgement, the instructor might deviate from these plans according to the group feedback.

In addition to the accurate definitions of the training events, additional locutions may be used to define wide modes of training (for instance, E-Learning (EL) may be used to group Computer-/Web-based Training (CWBT) and Virtual Classroom (VC), and Problem-based Learning (PBL) to define a pedagogical strategy).

5.2 Definitions of Training Events Used in Common Core Content

The following definitions provide a quick reference for the hurried reader (The definitions are further developed in 5.3 and 5.4.

Case (Case)

Training event based on the case study method (in which a real or fictional situation or series of events are presented to learners for their analysis and proposal of possible solutions). Most of the time it is a group session with the support of texts, visual aids and multimedia computer; sometimes it is individual training.

Computer-based Practical Exercises (CBPE)

The exercises are presented to the group by an instructor using visual aids and deciding, from learners' answers, when and how moving to next exercises.

Computer-/Web-based Training (CWBT)

The provision of knowledge and skills by means of a computer with numerous interactions, learner response analysis and free individual rhythm of learning (self-paced manner). The source is indifferently local or accessed through a network (Intranet or Internet).

Group Work (GrW)

The instructor facilitates the discovery of problems and the study of reference solutions by a group of learners, with the help of text or visual aids.

Hands On (HO)

Supervised practice on real equipment that is not in operation. Emulation on multimedia computer is sometimes sufficient. Text is used as additional data (instructions, operating manual, questionnaire, etc.).

Multimedia or sound Laboratory (Lab)

Lessons or exercises are provided in a room equipped with a set of individual positions. Instructor can monitor learners individually. Rhythm of learning is self-paced or restricted according to training material and instructor interventions.

Lecture (Lec)

A straight talk or exposition, possibly using visual or other aids, but without group participation other than questions, usually at the conclusion.

Lesson (Les)

A training technique incorporating a number of instructional techniques designed to ensure the participation of the learners in reaching the specified behavioural objectives. The instructor is able to ascertain whether material is being assimilated.

Part-Task Practice (PTP)

Pre-simulation which allows restricted or real-time practice of a part of the skills that are necessary for the operational task in a realistic environment (PTT or Sim).

Skill Acquisition (SA)

Pre-simulation, which allows self-pace, restricted or real-time practice of a part of the skills necessary for the operational task in a possibly non-realistic environment (e.g. 2D aerodrome).

Individual Simulation (ISimul)

Real-time full-task simulation involving one single learner.

Team Simulation (TSimul)

Real-time full-task simulation involving an individualised cell made of several learners. A team consists of two or more learners who are required to work together on related or interacting tasks.

Group Simulation (GSimul)

Real-time full-task simulation involving several individual or team simulations simultaneously.

Structured Briefing (StBf)

The training event StBf (Structured Briefing) is a planned group introduction for a simulation (or a series of simulations) stating the objectives of the exercise, the simulated operational procedures, the operation of the simulator, the expected role of each team member, including the instructor, and possibly demonstrations of simulation exercises. The training event StDf (Structured Debriefing) is a planned group review and discussion of the outcome of a simulation (or a series of simulations). The discussion is centred on the strategies chosen and their results. At the level of the training plan, StBf includes both StBf and StDf. Differentiation is done at the implementation.

Supervised Practices (Sup Pract)

Manipulations of equipment where the instructor provides the necessary feedback.

Visit (Vis)

Is considered as individual when each learner has the opportunity to develop questions and discussions, and to practise handover individually. If this activity is not important enough the visit is considered as a group activity.

Virtual Classroom (VC)

Distance training of a group of persons connected in synchronous mode and facilitated or lectured by an instructor.

5.3 List of Training Events Used in Common Core Content

Training events are as often as possible based on a unique occurrence of parameters (for instance, CBPE is always Ex + Vsl + Rstd + G). In this case the detailed indication of the parameters in the training plans could be omitted (when this is not possible the training event name and the complex area are in bold).

Sometimes one of the parameters is so prevailing that its name is given to the training event (e.g. 'lecture').

Training event[1]	**Training event**[2]	**Method**[2]	**Media**[2]	**Rate**[2]	**Mode**[2]
Case	Case	Case	Vid, MMC, Vsl (Backup Txt)	Rstd	I, G
Computer-based Practical Exercises	CBPE	Ex	Vsl	Rstd	G
Computer-/Web-based Training	CWBT	Inter	MMC	Self	I
Group Work	GrW	Facil	Vsl (Backup Txt)	Rstd	G
Hands On	HO	Sup Pract	RE	Rstd, Real	G
Multimedia or sound Laboratory	Lab	Les, Ex	MMC, sound	Self, Rstd	I
Lecture	Lec	Lec	Vsl (Backup Txt)	Rstd	G
Lesson	Les	Les	Vsl (Backup Txt)	Rstd	G
Part-Task Practice	PTP	Pre-Simul	PTT	Rstd	I
Skill Acquisition	SA	Pre-Simul	OTD	Self	I
Structured Briefing	StBf	Brief	Vsl	Rstd	G
Individual Simulation	ISimul	Simul	Sim, Hi Fi Sim	Real	I
Team Simulation	TSimul	Simul	Sim, Hi Fi Sim	Real	I
Group Simulation	GSimul	Simul	Sim, Hi Fi Sim	Real	G
Supervised Practices	Sup Pract	Sup Pract	Vsl (Backup Txt), MMC, RE	Rstd	G
Virtual Classroom	VC	Facil, Ex, Les, Lec	Net	Rstd	G
Visit	Vis	Sup Pract	RE	Rstd	G, I

[1] In full – [2] Abbreviated

5.4 The Four Parameters of the Training Event

5.4.1 Introduction

Our methodology to design training strategy is based on the answers to the following questions:

- What are the relations between the matter, the learner and the instructor? (training method)
- Which media is used to carry the training message? (media)
- Is the learning rate free or restricted or real? (learning rate)
- Is the training individual or in group? (mode of delivery)

To use the methodology the training designer will first try to find the appropriate type of training event within the existing list. If not found, a thought should be given to the possibility that the same type could be used with a local different denomination; the four parameters should help to sort this out. If this is not the case, the additional type of training event should be characterised by its four parameters.

5.4.2 Training methods

The training methods characterise the relations between the matter, the learner and the instructor.

Lecture (Lec)

A straight talk or exposition, possibly using visual or other aids, but without group participation other than questions, usually at the conclusion.

Lesson/Demonstration (Les)

A training technique incorporating a number of instructional techniques designed to ensure the participation of the learners in reaching the specified behavioural objectives. The instructor is able to ascertain whether material is being assimilated.

Case Study (Case)

A training method in which a real or fictional situation or series of events are presented to learners for their analysis and consideration of possible solutions or problems identified. Their findings in a real situation can be compared with what actually occurred.

Exercises (Ex)

The provision and consolidation of knowledge and skills through the performances of series of exercises.

Facilitation (Facil)

Process facilitation means helping people to achieve results using facilitation techniques.

Interactive Training (Inter)

The provision of knowledge and skills by means of a computer with numerous interactions, learner response analysis and allowing, when appropriate, free individual rhythm of learning (self-paced manner).

Supervised Practices (Sup Pract)

Manipulations of equipment where the instructor provides the necessary feedback.

Pre-Simulation (Pre-Simul)

The practice in restricted or real time of a part of the skills necessary for the operational task in a possibly unrealistic environment (e.g. 2D aerodrome).

Two types of pre-simulation are detailed at the level of the training event: Skill Acquisition (SA) and Part-Task Practice (PTP).

Simulation (Simul)

The provision of knowledge, skills and attitudes by means of representation of air traffic responding to any learner action as real air traffic. It always includes briefing, tutoring and debriefing.

Three types of simulation are detailed at the level of the training event: Individual Simulation (ISimul), Team Simulation (TSimul) and Group Simulation (GSimul).

Briefing (Brief)

An introduction to a training event during which interruption of the learner's activity is not normally anticipated (e.g. OJT and simulation). The method is used during the simulation (briefing) or planned separately (structured briefing).

Debriefing (Debrief)

A review and discussion on the outcome of a training event based on a formative assessment of that event. The technique is used during the simulation (debriefing) or planned separately (structured debriefing).

Tutoring (Tut)

The act of giving additional knowledge and guidance to an individual or small group of learners in an off-the-job, informal training situation. Tutoring is considered as a supplementary training event and may be automated in the case of guided simulation.

Role-Play (Role)

Learners act out a working model of some real-world human situation in interacting group. They are provided with background data and roles to play together with constraints which may change as the play proceeds.

5.4.3 Media

Media is the physical means by which an instructor or a training designer communicates a message. One media can use several supports (for instance, a Multimedia Computer (MMC) could use a diskette or CD-ROM, and video can use tape, CD or DVD). In this document we are going to define the media related to simulation but shall not attempt to make an exhaustive list of the many types of support and educational materials.

Real Equipment (RE)

Equipment such as CWP, NAVAIDs, avionics or even official documents such as charts or maps, either used in operational conditions (On-the-Job Training [OJT]) or in non-operational conditions (shadowing or demonstration). High-fidelity simulator may sometimes be used as a backup.

High-Fidelity Simulator (Hi Fi Sim)

A full-size replica of Controller Working Position (CWP) including all equipment and computer programmes necessary to represent full tasks of the sector or the tower and their environment. A spare operational position used as simulator is a good example of Hi Fi Sim. In the case of aerodrome it includes an out-of-the-tower view.

Simulator (Sim)

A device that presents the learner with a representation of the important features of the real situation and reproduces the operational conditions under which the learner can practise real-time tasks directly.

Part-Task Trainer (PTT)

A training machine for the learner to practise some operational functions independently of other functions not represented there, although they are necessarily associated to the first ones in the operational task.

Other Training Device (OTD)

A training machine which presents the learner with some operational functions on a non-realistic reproduction of the operational devices. It includes a generic MMC.

Multimedia Computer (MMC)

A (networked or stand-alone) multimedia computer or workstation dedicated to one learner or to a small cell. The hardware is off-the-shelf and has not been deeply modified for specific ATC purposes.

Network (Net)

A system of computers and terminals connected by communications lines.

Video (Vid)

Aids such as camera, camcorder, recorder, player, TV, monitor, projector and screen used for the generation, storage and reproduction of visual animated images and associated sounds (video, films, DVD and other). In particular, it enables to record a learner performance and to replay it.

Visual Aids (Vsl)

Aids such as projectors or screens used to display computer-based presentations, animations, slides, overhead, mock-up, models and video clips, possibly associated to loud speakers or headset for the sound.

Audio Aids (Aud)

Aids to communication that utilise the sense of hearing.

Text (Txt)

The provision of written documents including handouts, books, manuals, training documents, etc.

5.4.4 Learning rate

Self-paced Learning (Self)

A learning/teaching system whereby the learner is able to control the pace at which he/she works (in e-learning vocabulary, asynchronous mode).

Time-restricted Learning (Rstd)

A learning/teaching system whereby the course developer or instructor controls the pace at which the learner has to work (in e-learning vocabulary, synchronous mode).

Real Time (Real)

A learning/teaching system whereby the pace at which the learner has to work is the same as in real operation.

5.4.5 Mode of delivery

Individualised Training (I)

Features of the individualised training are the provision of possibly different stimuli to each learner, the separated analysis of their response and the provision of consequent new stimuli independent of the answers of other learners.

Note: Instruction of a small group of learners considered as an entity (for example planner and executive) is classed as individualised training. In ATC training this consideration of team building and the operational conditions very often imply that the learner is a team rather than an individual.

A team is:

> *… a group of two or more persons who interact dynamically and interdependently within assigned specific roles, functions and responsibilities. They have to adapt continuously to each other to ensure the establishment of a safe, orderly and expeditious flow of traffic.*

There is of course an apparent contradiction between the terms 'individualised' and 'team interaction'. This has to be understood by differentiation between team and group.

A typical example is a radar simulation, in area radar control, provided to twelve learners, working in six teams of two (planner plus executive) on six control positions simulating the same airspace sector.

Even if the proposed air traffic is the same for the six teams and even if the training objectives are the same, the simulations will progress differently for each of the teams. In addition, the simulations are not necessarily happening at the same time. This is not 'group' training. It might be considered as 'small-group training' if the teams were always composed of the same learners. Generally, this is not the case: in fact, most of the training is addressed to each individual who has to cope with a very close and very complex element (his partner in the team) among other more distant elements (other sectors,

units, aircraft, etc.). The fact that each partner sometimes reacts differently increases the individualisation of the training because none of the learners can be confronted with the same situation.

Group Training (G)

All the participants are presented the same learning material under the same conditions.

5.4.6 Global strategies

Training events are useful to describe elements of training. Additional locutions might be used to define a strategy globally applied to training.

E-Learning (EL)

Encompasses a set of methods and media characterised by the use of network and computers and the possibility of distance learning. Virtual classroom and CWBT in particular are e-learning training events.

Blended Learning

Combines E-learning to traditional classroom or simulation events.

Problem-based Learning (PBL)

A pedagogical strategy for posing significant, contextualised, real-world situations and providing resources, guidance, instruction and self-directed learning strategies to learners as they develop content knowledge, problem-solving skills and team participation skills.

5.4.7 List of training events parameters

Method	
Full name	**Abbreviation or Acronym**
Case Study	Case
Exercises	Ex
Lecture	Lec
Lesson/Demonstration	Les
Facilitation	Facil
Interactive Training	Inter
Pre-Simulation	Pre-Simul
Role-Play	Role
Simulation	Simul
Briefing	Brief
Debriefing	Debrief
Tutoring	Tut

Media	
Full name	**Abbreviation or Acronym**
Real Equipment	RE
High-Fidelity Simulator	Hi Fi Sim
Simulator	Sim
Part-Task Trainer	PTT
Other Training Device	OTD
Multimedia Computer	MMC
Network	Net
Video	Vid
Visual Aids	Vsl
Audio Aids	Aud
Text	Txt

Learning Rate	
Full name	**Abbreviation or Acronym**
Self-paced Learning	Self
Time-restricted Learning	Rstd
Real Time	Real

Mode	
Full name	**Abbreviation or Acronym**
Individualised Training	I
Group Training	G

5.4.8 Notion of generic, dedicated and typical simulation

Training by objectives is an accurate method to specify training. However, accuracy is sometimes detrimental to easy understanding for users. For example, drawing up a list of all the objectives of a simulation is very long if it includes all the performances addressed during the simulation.

One solution, which is frequently used, is to list the new objectives only. It was however considered that this solution did not highlight the necessary consolidation phases, which are yet a feature of ATC simulation.

The solution chosen in EATM(P) training documentation rather consists of using the concepts of generic, dedicated and typical simulation:

For each training (possibly each training phase if there are several), there are objectives that are implicitly part of any of the simulations of the phase.

So if a planned simulation only includes the generic objectives, it is noted as a **generic** simulation.

As soon as it includes additional objectives, it is noted as a **dedicated** simulation and only the additional objectives are explicitly listed.

The **typical** simulation is an exercise consisting of a specification by an example of the required student performance. (Some more specific objectives are not included in the typical simulation. Nevertheless, they have to be addressed during dedicated simulations.)

Codes will include letters G, D or T to indicate the type of simulation.

5.4.9 Implementation and adaptation of objectives to local simulation conditions

The objectives are observable performances to be implemented in an exercise context. Some difficulty may arise when the context is not suitable to the content of the exercise. General principle to answer this type of problem is to address the objectives for which simulation will not be realistic, either in training events that are not simulation (CWBT, PTP, CBPE, etc.) or in a dedicated simulation with an adapted support. This is shown in the two examples below:

- Example 1

  The objectives ‘Apply the methods of establishing radar identification using primary radar’ and ‘Apply the methods of establishing radar identification using secondary radar’. It may seem difficult to implement both objectives in a realistic simulation environment.

  In this first example primary radar identification may be done in a CWBT, while the simulated environment will only use secondary radar.

- Example 2

  How to deal with transition level objectives in an upper area sector?

  In this second example one could imagine a delegation of airspace during one single simulation.

The leading principle is that the performance is essential; the content is generally more contextual. The rationale behind this priority is that an essential aim is to make easier the transfer of knowledge from initial training to unit(s) training.

6. EATM(P) TRAINING DOCUMENTATION

When the training deliverables are relevant to training specification, examples or best practices, they are structured according to four concepts: syllabus, training plan, training event plan and training assessment plan.

6.1 Syllabus

A syllabus is a list of training objectives classified by subjects, topics and sub-topics showing the training necessary to fill the training gap and achieve the course aim. An unstructured content helps to detail the objectives. The syllabus does not indicate times, training techniques or the order in which the training objective should be achieved.

6.2 Training Plan

A training plan is a syllabus with additional information. The training plan details for each subject, topic and objective the training requirements (type of training event, educational material needed, method and mode of delivery). It also includes the time scale for achievement, and states performance objectives or tests to increase the accuracy of the specifications.

6.3 Training Event Plan

A training event is a set of actions identified in the training plan as the smaller unit of training. The training event has a type and is more accurately described by the association of a training technique, a media, a learning rate and a mode of delivery.

The training event plan is the document to be used by the instructor when preparing and providing the training. It recalls the objectives of the training event and its type. It gives a timeline, indicates material references and provides additional advice for the performance.

6.4 Assessment Plan

An assessment plan identifies for each subject, topic and objective how the assessment will be performed. In order to make the process more efficient, sets of objectives are linked to a performance objective. The test performance is then based on this performance objective.

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REFERENCES

EATMP (2000a) – O3. *Human Resources Programme – Stage 1: Programme Management Plan*. Ed. 1.0. Brussels: EUROCONTROL.

EATMP Human Resources Team (2000b) – T16. *Specifications on Training Methods and Tools*. HRS/TSP-006-GUI-01. Ed. 1.0. Released Issue. Brussels: EUROCONTROL.

FURTHER READING

EATMP Human Resources Team (2000) – T13. *Simulation Facilities for Air Traffic Control Training* – HUM.ET1.ST07.3000-REP-02. Ed. 1.0. Brussels: EUROCONTROL.

EATMP Human Resources Team (2000) – T14. *Guidelines for Common Core Content and Training Objectives for Air Traffic Controllers Training (Phase II)*. HUM.ET1.ST05.1000-GUI-02. Ed. 1.0. Released Issue. Brussels: EUROCONTROL.

EATMP Human Resources Team (2001) – T3. *Guidelines for Common Core Content and Training Objectives for Air Traffic Controller Training (Phase I: Revised)* – HRS/TSP-002-GUI-01 - Ed. 2.0. Released Issue. Brussels: EUROCONTROL.

EATMP Human Resources Team (2001) – T17. *Area Control Surveillance Rating with Radar and Terminal Endorsements – Training Plans*. HRS/TSP-006-GUI-02. Ed. 1.0 Released Issue. Brussels: EUROCONTROL.

EATMP Human Resources Team (2003) – T31. *Approach Control Surveillance Rating with Radar and Terminal Endorsements – Training Plans* – HRS/TSP-006-GUI-03. Ed. 1.0. Released Issue. Brussels: EUROCONTROL.

EATM Human Resources Team (2003) – T33. *ATCO Basic Training - Training Plans* – HRS/TSP-006-GUI-04. Ed. 1.0. Released Issue. Brussels: EUROCONTROL.

EATM Human Resources Team (2004) – T37. *ATCO Rating Training - Training Plans: Aerodrome Training – Annex C: Detailed Training Plans* – HRS/TSP-006-GUI-06. Ed. 1.0. Released Issue. Brussels: EUROCONTROL.

EUROCONTROL Safety Regulation Commission (SRC) (2002) *EUROCONTROL Safety Regulatory Requirements (ESARR) –*

ESARR5: ATM Services' Personnel. Ed. 2.0. Brussels: EUROCONTROL.

ABBREVIATIONS AND ACRONYMS

For the purposes of this document the following abbreviations and acronyms shall apply:

2D	Two dimensional
ADS	Automatic Dependent Surveillance
ADS C	ADS Contract
AFTN	Aeronautical Fixed Telecommunications Network
ANS	Air Navigation Services
ATC	Air Traffic Control
ATCO	Air Traffic Controller / Air Traffic Control Officer *(US/UK)*
ATM	Air Traffic Management
ATN	Aeronautical Telecommunication Network
ATS	Air Traffic Services
ATSEP	Air Traffic Safety Electronic Personnel
Aud	Audio Aids
Brief	Briefing
Case	Case *(training event) or* case study (*training method)*
CBPE	Computer-Based Practical Exercises
CD-ROM	Compact Disk – Read-Only Memory
CNS-ATM	Communication Navigation and Surveillance / Air Traffic Management
CVOR	Conventional VOR
CWBT	Computer-/Web-Based Training
CWP	Controller Work Position
Debrief	Debriefing
DME	Distance Measuring Equipment

DME/N	Normal DME
DME/P	Precision DME
DVD	Digital Versatile Disk
DVOR	Doppler VOR
EATCHIP	European ATC Harmonisation and Integration Programme *(now EATM(P))*
EATM(P)	European ATM (Programme) *(formerly EATCHIP)*
EL	E-Learning
ESARR	EUROCONTROL Safety Regulatory Requirement(s) *(SRC)*
ET	Executive Task *(EATCHIP)*
EUROCONTROL	European Organisation for the Safety of Air Navigation
Ex	Exercices
Facial	Facilitation
G	Group Training
GALILEO	*Satellite radio navigation system*
GBAS	Ground-Based Augmentation System
GrW	Group Work
GSimul	Group Simulation
GUI	Guidelines *(EATCHIP\EATM(P))*
Hi Fi Sim	High-Fidelity Simulator
HO	Hands On
HRS	Human Resources Programme *(EATMP)*
HRT	Human Resources Team *(EACHIP/EATM(P))*
HUM	Human Factors*, or* Human Resources (Domain*) (EATCHIP/EATMP)*
I	Individualised Training

IANS	Institute of Air Navigation Services *(EUROCONTROL, Luxembourg)*
ICAO	International Civil Aviation Organization
ILS	Instrument Landing System
Inter	Interactive Training
ISimul	Individual Simulation
Lab	Multimedia or sound Laboratory
LAN	Local Area Network
Lec	Lecture *(both in the sense of training event and training method)*
Les	Lesson (*training event) or* Lesson/Demonstration *(training method)*
MMC	Multimedia Computer
NAVAID	Navigation(al) Aid
NDB	Non-Directional Beacon
Net	Network
NOTAM	Notice to Airmen
OJT	On-The-Job Training
OJTI	On-The-Job-Training Instructor
OS	Operating System
OTD	Other Training Device
PBL	Problem-Based Learning
Pre-Simul	Pre-Simulation
PSC	Performance, Standard, Conditions
PTP	Part-Task Practice
PTT	Part-Task Trainer
RCC	Rescue Coordination Centre
RE	Real Equipment
Real	Real Time

REP	Report *(EATCHIP/EATM(P))*
Role	Role-Play
Rstd	Time-restricted Learning
SA	Skill Acquisition
SD	Senior Director, EATM Service Business Unit *(EUROCONTROL Headquarters)*
Self	Self-paced Learning
Sim	Simulator
Simul	Simulation
SNOWTAM	A special series NOTAM notifying the presence or removal of hazardous conditions due to snow, ice, slush or standing water associated with snow, slush and ice on the movement area, by means of a specific format.
SRC	Safety Regulation Commission *(EUROCONTROL)*
ST	Specialist Task *(EATCHIP)*
StBf	Structured Briefing
StDf	Structured Debriefing
Sup Pract	Supervised Practices
TDH Unit	Training Development and Harmonisation Unit *(EUROCONTROL, IANS)*
TF-CCC	Task Force Common Core Content *(EATCHIP/EATM(P), HRT, TSG/TFG)*
TFG	Training Focus Group *(EATM, HRT; formerly known as 'TSG')*
TSG	Training Sub-Group *(EATCHIP/EATMP, HRT; today known as 'TFG')*
TSimul	Team Simulation
TSP	Training Sub-Programme *(EATM(P), HRS)*
Tut	Tutoring
TV	Television

Txt	Text
VC	Visual Classroom
VHF	Very High Frequency
Vid	Video
VOR	VHF Omnidirectional Radio Range
Vsl	Visual Aids

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CONTRIBUTORS

NAME	STATE / ORGANISATION
Mr Michel PISTRE	EUROCONTROL IANS

Document configuration

Mrs Carine HELLINCKX *(external contractor, in charge)*	EUROCONTROL Headquarters
Mrs Maryem BELBOUHALI	EUROCONTROL IANS

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