

*This document is issued as an EATMP Guideline. The contents are not mandatory.  
They provide information and explanation or may indicate best practice.*

# Guidelines for Competence Assessment

Edition Number	:	2.0
Edition Date	:	16.03.2005
Status	:	Released Issue
Intended for	:	EATM Stakeholders

## DOCUMENT CHARACTERISTICS

TITLE		
<b>Guidelines for Competence Assessment</b>		
<b>EATM Infocentre Reference:</b>		050322-01
<b>Document Identifier</b>	<b>Edition Number:</b>	2.0
	<b>Edition Date:</b>	16.03.2005
<b>Abstract</b>		
<p>The ATCO Licensing Review Task Force (ALRTF) set up by the EATM Human Resources Team (HRT) developed this document as guidance for ECAC Member States introducing a competence assessment scheme. The first edition of the document outlined the process for developing a competence assessment scheme from the selection of competence assessors, to the conduct of competence assessments to record keeping. This 2<sup>nd</sup> edition of Guidelines for Competence Assessment provides a more comprehensive analysis of the subject by offering guidelines for the development of performance objectives and additionally includes guidance for the competence assessment of On-the-Job-Training Instructors (OJTIs) and Competence Assessors.</p>		
<b>Keywords</b>		
Competence Assessment	Competence Assessor	Continuous Assessment
Practical Assessments	Oral Assessments	Written Assessments
Record Keeping	Consistency	Air Traffic Controller
ESARR 5	Refresher	Unusual/Emergency Situations
Performance Objectives	Local Competence Assessor	Record Keeping
<b>Contact Persons</b>	<b>Tel</b>	<b>Unit</b>
Brian Considine	+32.2.729.3953	Human Factors Management Business Division (DAS/HUM)

STATUS, AUDIENCE AND ACCESSIBILITY					
Status		Intended for		Accessible via	
Working Draft	<input type="checkbox"/>	General Public	<input type="checkbox"/>	Intranet	<input type="checkbox"/>
Draft	<input type="checkbox"/>	EATM Stakeholders	<input checked="" type="checkbox"/>	Extranet	<input type="checkbox"/>
Proposed Issue	<input type="checkbox"/>	Restricted Audience	<input type="checkbox"/>	Internet ( <a href="http://www.eurocontrol.int">www.eurocontrol.int</a> )	<input checked="" type="checkbox"/>
Released Issue	<input checked="" type="checkbox"/>	<i>Printed &amp; electronic copies of the document can be obtained from the EATM Infocentre (see page iii)</i>			

ELECTRONIC SOURCE		
<b>Path:</b>		
<b>Host System</b>	<b>Software</b>	<b>Size</b>
Microsoft Office	Microsoft Word 2002	

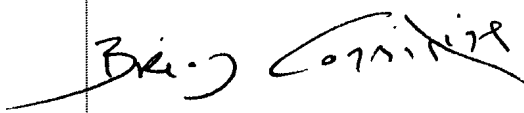
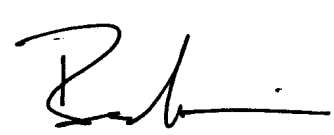
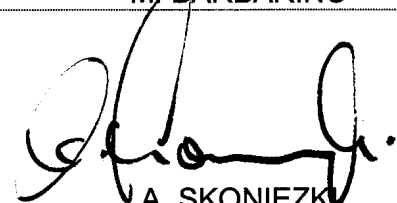

**EATM Infocentre**  
 EUROCONTROL Headquarters  
 96 Rue de la Fusée  
 B-1130 BRUSSELS

Tel: +32 (0)2 729 51 51  
 Fax: +32 (0)2 729 99 84  
 E-mail: [eatmp.infocentre@eurocontrol.int](mailto: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
<i>Please make sure that the EATMP Infocentre Reference is present on page ii.</i>		
Work Package Leader	 B. CONSIDINE	23/03/05
Manager EATM Human Factors Domain	 M. BARBARINO	23/03/05
Chairman EATM Human Resources Team (HRT)	 A. SKONIEZKI	23/03/05
Director ATM Programmes (DAP)	 G. PAULSON	29.3.05

## DOCUMENT CHANGE RECORD

The following table records the complete history of the successive editions of the present document.

EDITION NUMBER	EDITION DATE	INFOCENTRE REFERENCE	REASON FOR CHANGE	PAGES AFFECTED
0.1	12.05.2003		Working Draft	All
0.2	16.09.2003		Draft 1	All
0.3	03.02.2003		Draft 2	All
0.4	15.03.2004		Proposed for HRT21 in April 2004 (document configuration and editorial changes)	All
1.0	24.05.2004	050504-01	Released Issue (agreed on 28.04.2004) (final document configuration adjustments and editorial changes)	All
2.0	22.02.05		Edition 2.0 proposed to HRT23	All
2.0	16.03.05	050322-01	Released Issue (agreed on 16.03.2005)	All

# CONTENTS

<b>DOCUMENT CHARACTERISTICS .....</b>	<b>ii</b>
<b>DOCUMENT APPROVAL .....</b>	<b>1</b>
<b>DOCUMENT CHANGE RECORD .....</b>	<b>2</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>5</b>
<b>1. INTRODUCTION .....</b>	<b>7</b>
1.1 Background .....	7
1.2 Rationale .....	7
<b>2. GENERAL .....</b>	<b>8</b>
<b>3. COMPETENCE ASSESSMENT SCHEME DOCUMENTATION.....</b>	<b>9</b>
<b>4. Appointment of Competence Assessors .....</b>	<b>10</b>
<b>5. Methods of Competence Assessment.....</b>	<b>11</b>
5.1 Continuous Assessment.....	11
5.2 Dedicated Practical Assessments .....	12
5.3 The Oral part of the Assessment Process .....	12
5.4 Written Examinations .....	12
<b>6. Record Keeping .....</b>	<b>13</b>
<b>7. Outcome of a Competence Assessment.....</b>	<b>13</b>
<b>8. Consistency of Controller Competence Assessment.....</b>	<b>15</b>
<b>9. Refresher and Unusual/Emergency Situations Training.....</b>	<b>15</b>
9.1 Refresher Training.....	15
9.2 Unusual/Emergency Situations Training.....	16
<b>10. Who is subject to Competence Assessment.....</b>	<b>17</b>

<b>11. Development of Performance Objectives .....</b>	<b>18</b>
11.1 Performance Objectives for Controllers.....	18
11.2 Performance Objectives for OJTIs .....	21
11.3 Performance Objectives for Competence Assessors.....	26
<b>REFERENCES.....</b>	<b>31</b>
<b>ABBREVIATIONS AND ACRONYMS .....</b>	<b>33</b>
<b>CONTRIBUTORS .....</b>	<b>34</b>

## EXECUTIVE SUMMARY

This document explains the rationale for and describes the development of a Unit competence assessment scheme. It provides guidance on the following:

- Competence Assessment Scheme Documentation
- Appointment of Competence Assessors
- Methods of Competence Assessment
- Record Keeping
- Outcome of a Competence Assessment
- Consistency of Controller Competence Assessment
- Refresher and Unusual/Emergency Situations Training
- Who are subject to Competence Assessment
- Development of Performance Objectives

The document addresses the competence assessment of controllers, on-the-job-training instructors (OJTIs) and competence assessors.

Note 1: The designations “Assessment” and “Competence Assessor” are used throughout this document. It is recognised that some States use “Examination” and “Competence Examiner”.

Note 2: During the development of this document it was decided that only two conclusions should be considered when determining operational competence in the ATM environment, they are “competent” or “not competent”. ESARR3 requires that staff are adequately trained, motivated and competent. Likewise ESARR 5 and the European Manual of Personnel Licensing - Air Traffic Controllers refer to personnel being competent and for action to be taken when competence is either in doubt or a person is shown to be not competent. The safety requirement therefore is for competent staff. The specific criteria, “competent or not competent” appear to be accepted and well understood by operational staff. The introduction of any expanded scale of competence could cause confusion and become a divisive issue amongst operational staff.

**It is stressed that this document consists of guidance only.**

Page intentionally left blank



## **1. INTRODUCTION**

### **1.1 Background**

The European Manual of Personnel Licensing – Air Traffic Controllers (EATM, 2004 – L1) provides some guidance on the introduction of a competence assessment scheme. Feedback from Member States and the EUROCONTROL workshops on ESARR5 and ATCO Licensing conducted during 2003 clearly identified the need to develop more comprehensive guidelines.

The HRT ATCO Licensing Review Task Force (ALRTF) addressed these issues, the outcome of which was the development of Guidelines for Competence Assessment (EATM, 2004 – L6). This deliverable includes guidelines for Air Navigation Service Providers (ANSPs) for the development and application of a competence assessment scheme specifically for controllers.

This 2<sup>nd</sup> edition of Guidelines for Competence Assessment provides a more comprehensive review of the subject and additionally includes guidance for the competence assessment of On-the-Job-Training Instructors (OJTIs) and Competence Assessors.

The document acknowledges that it is a matter for each individual Member State, its regulatory body together with its service providers, to decide on how to develop and implement their own Unit competence assessment scheme(s).

### **1.2 Rationale**

A Designated Authority shall ensure, through the application of appropriate regulatory principles and processes, that organisations and personnel responsible for tasks in the provision of air traffic services or supporting the provision of air traffic services, which are considered to be related to the safety of air traffic, are competent to carry out those tasks – ESARR 5 (SRC, 2002).

The purpose of competence assessment is to affirm competence and to identify areas in need of improvement as appropriate either in the individual or the system within which the individual works. Competence assessment supports the individual and the system. ESARR 5 (SRC, 2002) sets out the general safety requirements for all ATM services' personnel responsible for safety related tasks within the provision of ATM services across the ECAC area and the specific safety requirements for ATCOs.

- ESARR 5 requires that air traffic controllers be subject to an assessment of their continuing competence.

- ESARR5 requires that the provider of ATS will notify the Designated Authority when an OJTI is no longer competent to provide training.
- ESARR5 requires that the Designated Authority approves such personnel, as it sees fit, to conduct examinations - these personnel are referred to in this document as competence assessors
- ESARR5 requires that Units have competence assessment schemes to satisfy the requirement “that controllers must maintain operational competence and experience”.
- ESARR5 describes competence as “possession of the required level of knowledge, skills, experience and where required, proficiency in English, to permit the safe and efficient provision of ATM services”.

Competencies describe what people need to do to perform a job well. They are about stripping jobs down into their component parts and linking together the basic elements of performance – what has to be done and to what standard. (Armstrong, Barron (1998) Performance Management – The New Realities).

Competence must be measured against performance objectives. In the harmonised European ATM environment there should be common understanding and application of competence assessment procedures.

Consistency in the assessment of competence requires that competence assessors be properly trained to promote common standards in line with regulatory requirements and the changing ATC systems.

When implementing a competence assessment scheme ANSPs should be aware of and prepared for the potential consequences of the assessment. These consequences could include the need for remedial training, including simulation exercises and a period of OJT as well as the immediate or eventual withdrawal of personnel from operational duties.

## **2. GENERAL**

A competence assessment scheme will play an important role in reinforcing a safety culture in the ATS operational environment. It will promote uniformity in the application of Air Traffic Control (ATC) procedures throughout the Unit and encourage common approaches to solving operational problems through the establishment of “best practice” controlling techniques.

It is crucial that a competence assessment scheme is viewed as a credible process which makes a positive contribution to safety. Competence assessment of controllers must be a genuine test of a controller's operational skill and knowledge. Although failure during competence assessment is

expected to be a rare occurrence, the actual assessment must be seen by controllers as one in which they will not automatically be assessed as competent in respect of their performance.

In the ATM environment a competence assessment scheme is a process by which an ANSP assures the Designated Authority that all personnel involved in safety related tasks are competent.

Judging competence by a process of assessment rather than by examination requires the gathering of as much confirmatory evidence as possible by direct observation. This should be supplemented by other references and supporting evidence such as training records, theoretical checks, discussions and interviews. Assessment takes a longer more detailed view of performance.

The following definitions are taken from Assessing Operational Competency (EATM, 2002 – T29)

### **Assessment**

The procedure by which the professional qualities currently being demonstrated by a student or trainee are determined. In some cases consistency may be a requirement and the attributes may be assessed individually or in their entirety. In other words, the overall quality of work is being judged.

### **Examination**

An in-depth inspection of a person's knowledge. It is a highly formalised test for a qualification using written and/or oral questioning.

## **3. COMPETENCE ASSESSMENT SCHEME DOCUMENTATION**

Competence assessment documentation should clearly explain;

- The process by which the assessment will be conducted, either by ongoing or dedicated check.
- The process for selecting and training competence assessors together with the duration of their appointments as competence assessors.
- How controllers are informed of when their competence assessment is due.
- The process for allocating controllers to particular competence assessors (including any procedures to permit controllers to appeal against being allocated to a particular assessor).
- How competence is to be assessed together with the objectives against which the assessment will be made.

*Note : The objectives referred to above may be the performance objectives from the relevant parts of the rating requirements and/or Unit specific objectives or broader objectives to be tested.*

- How the records are to be kept by competence assessors and how they record and advise the ANSP of the outcome of the competence assessment.

*Note: The recording system must be auditable to enable the Designated Authority to satisfy itself that the competence assessment scheme is being correctly conducted. Any written records kept by competence assessors should be retained for a reasonable period.*

- How the Designated Authority is to be advised of the results of competence assessments.

*Note: The requirement above does not imply that the ANSP must formally advise the Designated Authority of the outcome of each competence assessment. When authorised, the ANSP could maintain records in the Unit and make them available for audit by the Designated Authority as required.*

- How the appeal process is structured.

#### **4. APPOINTMENT OF COMPETENCE ASSESSORS**

The importance of good selection procedures for competence assessors cannot be overstressed. A competence assessor should be;

- Be a valid and rated controller at the Unit and on the working positions for which unit endorsements will be issued
- In the case of a small Unit, where an external competence assessor will be used, he should hold a valid rating within the same rating discipline
- Trained in the Units process for assessment and approved by the Designated Authority

Experience as an OJTI would be an advantage.

Competence assessors should be selected on the basis of their experience as well as their suitability and willingness to be competence assessors. Seniority should not be a pre-condition for selection. A competence assessor requires well developed interpersonal and communication skills together with a fundamental commitment to quality and the maintenance of standards.

Any newly trained competence assessor should be allocated to an experienced competence assessor for an initial period. The experienced assessor will act as a guide until such time as the new competence assessor becomes fully conversant with the Unit's competence scheme and the skills of

assessment. This process would require that a newly appointed competence assessor conduct a minimum number of dedicated assessments under supervision. The new competence assessor would be assessed by the experienced assessor before being confirmed as suitable to conduct competence assessments unsupervised

In some ANSPs, ATCOs have the right to nominate the names of peers to be elected as a competence assessor. Management have the right to veto nominees. This system seems to work very well as it has the support and trust of both the ATCOs being assessed and also the management.

*Note: The EUROCONTROL Institute of Air Navigation Services in Luxembourg offers two training courses for competence assessors, "Unit Licensing Assessor and Local Competence Assessor". States should consider taking advantage of these courses to train at least a core group of assessors. The courses are equally suitable to be run by individual States to train their own assessors.*

## **5. METHODS OF COMPETENCE ASSESSMENT**

Competence may be assessed by a system of:

- a) Continuous assessment; or
- b) Dedicated practical check; or
- c) Combination of (a) and (b) above; and
- d) Oral Examination and/or a written or Computer-Based Training (CBT) test of the controller's knowledge of Unit and national ATC procedures.

### **5.1 Continuous Assessment**

Continuous assessment may be achieved by the competence assessor observing the standard of the air traffic control service provided by those whose competence he will certify as he works with them during normal operational duties.

Where the competence assessor has not had sufficient contact with the controller to adequately assess his performance he will not certify the controller's competence until he has conducted a dedicated practical assessment. The controller concerned must be advised that a dedicated practical assessment is to be conducted.

## **5.2 Dedicated Practical Assessments**

A dedicated practical assessment would normally be carried out annually or at any other time required by the ANSP or the Designated Authority.

To conduct a dedicated practical assessment the competence assessor sits with the controller with the sole purpose of observing the quality and standard of work being carried out. This differs from continuous assessment in that the competence assessor is not involved in any tasks other than observation of the controller being assessed. The controller concerned must be briefed on the conduct of the assessment particularly when it is necessary to monitor and observe him from a remote position. Following a dedicated practical check the competence assessor must de-brief the controller being assessed and give feedback regarding the quality of working practices observed. If a student/trainee or controller's performance is observed only in some working situations the assessment must be supplemented by questioning on other situations, e.g. low visibility operations, snow clearing, military activity, etc.

## **5.3 The Oral part of the Assessment Process**

The oral element of the process (when it forms part of the agreed process) is usually carried out after the practical element. All key performance objectives must be tested to confirm understanding. Scenario-type questioning allows the assessor to gather additional evidence of how a student/trainee or controller would have reacted in circumstances that were not observable but are nevertheless considered important to the overall operation at that Unit. A student/trainee or controller who demonstrates practically that he can do the job (seen by direct observation) and can explain the reasons for acting in a particular way (verified through the oral element) has demonstrated understanding and has fulfilled the requirements to be considered competent. As stated, when used properly, the oral element of the process primarily establishes how the student/trainee or controller would work under circumstances the assessor was unable to witness. Additionally, the assessor will be able to focus on certain specific observations to provide clarification. The oral will, therefore, give a clear indication that the student/trainee or controller knows, not only what he should be doing, but why he should be doing it. The oral process requires considerable skill and it is difficult to ensure consistency between individual competence assessors. This further highlights the importance of a structured training process for competence assessors.

## **5.4 Written Examinations**

It is easier to administer and to ensure the consistency of written examinations particularly when using multiple-choice questioning. Although multiple-choice questioning can test knowledge it is not appropriate for determining what a controller would do in a particular operational situation.

The most comprehensive method of testing a controller's understanding, as opposed to his possession of pure knowledge, would be a combination of

multiple-choice questions, that assess the controller's knowledge of Unit and national procedures, conducted using Computer-based Training (CBT), together with a separate oral examination which tests the controller's reactions to operational situations.

## **6. RECORD KEEPING**

Competence assessors should keep records of the periods during which they observe and assess the competence of the controllers they have been allocated. Where continuous assessment is the chosen process, assessors must be particularly disciplined in this requirement. These records would be short and informal if the competence assessor had no reservations about a controller's competence. Where the competence assessor is concerned that a controller's operational competence is declining, but not yet to the extent that he is assessed as being not competent, more comprehensive records would be required and early intervention possibly in the form of remedial training may be needed.

The formal assessment of the controller's ongoing competence to satisfy the licensing/certificate of competence requirements should be in a standard format agreed between the ANSP and the Designated Authority.

## **7. OUTCOME OF A COMPETENCE ASSESSMENT**

The competence of a controller is measured against performance objectives, therefore, at the end of an assessment, whether ongoing or dedicated, the controller will have been found to be either 'competent' or 'not competent' as the case may be.

There may be occasions however, when the controller's overall performance, although safe, may be described as 'barely satisfactory'. This may be caused by either one major factor or several smaller factors being observed during the assessment which, in themselves are not enough to declare the controller 'not competent'. This situation gives the competence assessor cause for concern and it illustrates the 'declining performance' of the controller from what is expected. If the controller's performance should deteriorate or 'decline' any further, then it would become unacceptable.

In a competence scheme based on continuous assessment, competence assessors should be able to identify controllers whose operational competence is declining, but who are not yet below the required competence level. A competence assessor who identifies such a problem should discuss his concerns with the controller concerned in order to identify, if possible, the cause of the decline in performance and determine in conjunction with the controller in question and the Unit management any remedial action that could be taken. This remedial action may include remedial training or may require a reduction in the number of sectors or operational positions on which a controller holds valid ratings. Where possible controllers whose competence

is declining should be permitted to voluntarily give up a rating or endorsement rather than be declared not competent.

If the remedial action proves ineffective and the controller's performance continues to decline the competence assessor should conduct a dedicated practical assessment to confirm his initial assessment. If this assessment concludes that the controller is not competent, the controller should be immediately informed of the result and the Unit or team management advised. The controller will not, from that point on, be permitted to provide an unsupervised service and Units have the authority to withdraw controllers from operational duty in the interest of safety and without prejudice.



## **8. CONSISTENCY OF CONTROLLER COMPETENCE ASSESSMENT**

Competence assessors will require time to monitor and report on the controllers whose competence they are required to assess. Units when deciding how many controllers are allocated to each competence assessor should take this into account. Because Units vary in their operational complexity and in the way they allocate controllers for operational duty it is impossible to give firm guidance on the number of controllers that should be allocated to an individual competence assessor. In one State an established competence scheme by continuous assessment permits a competence assessor to assess the competence of a maximum of six other controllers. Competence assessors should be subject to the controller competence assessment scheme in the same way as the other controllers. Individual competence assessors, therefore, will be allocated to other competence assessors who will assess their competence in accordance with the requirements of the competence assessment scheme.

The competence assessment scheme should contain procedures to ensure consistency. Unit's competence assessors should all assess to the same standard. It is suggested that Units should designate at least one competence assessor to be the principal competence assessor from each team. Each principal competence assessor would be responsible for ensuring consistency of assessment amongst the competence assessors in his team and should meet with the other principal competence assessors at regular intervals to ensure consistency throughout the Unit. Unit consistency can be further enhanced by competence assessors carrying out dedicated practical checks in other teams.

*Note: Competence assessor's duties may also include taking part in simulations and checking out controller's following the introduction of new operational procedures. They will inevitably have a role to play in unit investigations following incidents or accidents in determining whether or not a controller's competence is in doubt.*

## **9. REFRESHER AND UNUSUAL/EMERGENCY SITUATIONS TRAINING**

### **9.1 Refresher Training**

ESARR 5 requires that operational controllers should undertake periodic refresher and emergency training to assist them to maintain their operational competence. This training may be practical training conducted on simulators.

Regular refresher training should be given where controllers do not get sufficient practice to maintain their competence in particular operational

procedures for example, extensive remote holding in the event of runway closure or restrictions.

At Units where traffic loading varies seasonally, refresher training should be given to ensure that controllers retain their competence to handle high traffic loadings. Refresher training may also be used to enable controllers to refresh their skills and knowledge of little-practised procedures before undertaking a competence assessment.

Further/additional training should be used to update controllers on planned changes to operational procedures and advances in technologies and their likely impact on operational practices.

## **9.2 Unusual/Emergency Situations Training**

Many controllers will have worked for long periods without experiencing an unusual or emergency situation. The purpose of unusual/emergency situations training, therefore, is to provide controllers with the skills and knowledge to enable them to provide assistance to aircraft in emergency and to deal with unusual situations or circumstances at the ATC Unit, such as system failure, partial or total.

Student controllers will have successfully completed Unusual/Emergency situations training as part of Initial Training and Unit specific Unusual/Emergency situations training as part of their Unit training. Operational controllers should undertake Unusual/Emergency situations refresher training on a regular basis in order to enhance their competence to deal with aircraft emergencies and unusual situations.

Note: *EUROCONTROL has developed three deliverables that might be of assistance -*

*Guidelines for Refresher Training for Air Traffic Controllers"(EATM, 2003a – T34)*

*Guidelines for Controller Training in the Handling of Unusual/Emergency Situations (EATM, 2003b – T11)*

*Unusual/Emergency Situations Training (CD-ROM) (EATM).*

## **10. WHO IS SUBJECT TO COMPETENCE ASSESSMENT**

In addressing competence in the ATM environment, and specifically in air traffic control, there are several areas that should be considered:

- Assessment during simulation exercises during rating training and pre-OJT
- Assessment during OJT
- First competence assessment (first valid rating)
- Ongoing competence assessment
- On the job training instructor competence assessment
- Assessor competence assessment

In many ATM environments performance criteria and objectives for assessment during rating training and OJT are well established. However, specific performance criteria and objectives may need to be developed for the assessment of first competence (1<sup>st</sup> valid rating), the ongoing competence of the controller, the OJTI and the competence assessor.

For the purpose of assessment, therefore, different key performance objectives should be defined for each of the different disciplines as follows:

### **For the Controller task:**

- Normal assessment during rating training
- Normal assessment at the end of rating training
- Normal assessment during OJT
- First Competence Assessment
- Ongoing Competence Assessment

### **For the OJTI task:**

- First Competence Assessment
- Ongoing Competence Assessment

### **For the Assessor task:**

- First Competence Assessment
- Ongoing Competence Assessment

## **11. DEVELOPMENT OF PERFORMANCE OBJECTIVES**

### **11.1 Performance Objectives for Controllers**

The aim of air traffic control is to provide a safe, orderly and efficient flow of air traffic. Controllers, even within the same Unit, often achieve this objective in different ways. It is this phenomenon that makes a completely objective assessment procedure so difficult. Through the introduction of key performance objectives and the formal training of competence assessors the effect of subjectivity can be limited. Therefore a set of key performance objectives must be developed to ensure that the focus of the assessment is correct. Through the use of key performance objectives for assessment purposes weaknesses revealed or suspected may be further diagnosed by making reference to the more detailed task objectives from the Unit Training Plan.

To assist the competence assessor in the task, the availability of a relatively simple checklist would be beneficial. It should be noted, however, that the checklist should not distract the competence assessor from the primary task of observation. The checklist would best be completed before the formal debriefing and it would also be of great assistance to the competence assessor in compiling the report. Whatever the key performances demanded of a student/trainee, controller, OJTI or assessor one of the most important elements of any competence assessment is that the person being assessed has a clear understanding of the objectives against which he is being assessed.

The following table could be used during the formal assessment of the controller. This table is merely an example of how a checklist is constructed using the performance objectives as “Prime tasks” and “Sub tasks”. The table includes a “Remarks” column for each sub-task and a “Conclusion” box where the overall outcome of the assessment may be recorded.

*Note; Action verbs, at level 3 or higher, from the “EATM Training Progression and Concepts” (EATM 2004 – T 38) are used in writing the sub tasks to define the performance objectives.*

<b>Prime Tasks</b>	<b>Sub Tasks</b>	<b>Remarks</b>
<b>Theory</b>	Apply specialised knowledge in: airspace, local procedures, aircraft performance, meteorology, and handling of technical equipment.	
<b>Radio/Telephony and Coordination</b>	Apply correct coordination procedures and RTF by using the prescribed phraseology in English and where appropriate in national language.	
<b>Communication</b>	Describe different situations clearly and precisely. Use precise, clear and unambiguous information by applying a situation related emphasis, rate of speech and sound. Use appropriate terminology.	
<b>Data Display</b>	Perform correct handling and updating of control strips (physically or electronically) for the correct representation of the traffic situation. Record clear, complete and legible writing where appropriate.	
<b>Traffic Planning</b>	Ensure forward looking traffic planning for a safe and economic flow of air traffic. Use newly acquired information. Ensure a proactive working method.	
<b>Problem Detection</b>	Detect and analyse possible problems and provide acceptable solutions in a timely manner	

<b>Situation Awareness</b>	Obtain and maintain a mental picture of the traffic situation using all the information sources available, even from outside own area of responsibility. Appreciate own traffic load limits.	
<b>Reaction</b>	Respond in a timely, flexible and suitable manner as a result of changes caused by traffic situation. Perform timely transmission of revisions. Integrate already given clearances. Organise priorities.	
<b>Application of Separation Minima</b>	Apply the prescribed separation minima bearing in mind economic aspects when handling traffic.	
<b>Customer Requirements</b>	Respond to customer needs with business like explanations and effective use of RTF.	
<b>Resilience</b>	Perform constantly over a long period of time even under high workload. Ensure performance is not reduced because of work related emotions. Assess workload and obtain support in good time. Appreciate the resilience limit in adjacent sectors.	
<b>Teamwork</b>	Appreciate that every team member can make a contribution in the promotion of good teamwork. Provide/obtain support. Respond to proposals from team members. Notify mistakes. Ensure safety and efficiency by good team performance.	
<b>Conclusion</b>		

## **11.2 Performance Objectives for OJTIs**

### **11.2.1 Role of the OJTI**

Many professional standards and good working practices are learned by example and observation. An OJTI who has an unprofessional approach to his work will pass on strong and damaging messages. An unprofessional approach will include for example, poor time keeping, reading at the working position, casual conversations with others causing distraction etc. Since the OJTI is such an important role model for students/trainee controllers it is essential that the OJTIs instructional ability as well as his general attitude towards instruction, the student/trainee controller and indeed other team members is of the highest standard.

Some OJTIs will forget or overlook the fact that a student/trainee controller is in a stage of development. Students/trainee controllers will make mistakes and they will get it wrong, sometimes to the frustration of the OJTI. That frustration must be controlled. Problems and difficulties must be resolved with empathy and, more importantly, with respect and professionalism.

Affirming feedback should be given as appropriate. Similarly, mistakes or shortcomings should be resolved with remedial feedback during formal debriefings and briefings. This helps to ensure that the student/trainee controller's self esteem is maintained. OJTIs should never overlook the significance of self-esteem and the power of self worth. Mental aggression (e.g. sarcasm) or indeed any form of hostility towards a student/trainee controller is strictly unacceptable and unprofessional behaviour.

### **11.2.2 ANSPs Responsibilities**

Much emphasis is placed on the techniques, behaviours and attitudes of the OJTI in maintaining the highest standards during on-the-job training. ANSPs also have an important role to play in ensuring that these standards are maintained. As norms, attitudes and practices develop over time, ANSP line managers and supervisory staff must meet their obligations towards maintaining high standards in training quality.

Amongst these responsibilities are:

- The development of a Unit Training Plan that has the approval of the Designated Authority.
- The introduction of a competence assessment scheme for OJTIs.
- To be more cognisant of the performance objectives of OJTIs.
- To give more frequent affirming and remedial feedback to OJTIs.

- To provide the enabling facilities for quality training such as time and facilities for briefings and debriefings.

### **11.2.3 Means of Confirming the Competence of OJTIs**

#### **11.2.3.1 *Formal Assessment***

At intervals agreed by the Designated Authority and the ANSP, an authorised assessor will observe a training session conducted by an OJTI in order to assess the OJTIs competence. This competence assessment should be based on the agreed performance objectives and should serve as the basis for the renewal of the OJTI licence endorsement.

The competence assessment of OJTIs may not normally come under the responsibilities of the competence assessors approved for carrying out the ongoing competence checks of controllers. The rationale here is that the quality of the OJTIs work is a training issue, removed from the person's competence as a controller and it is important to ensure that the two issues do not become confused. Additionally the OJTIs instructional competence will, for the most part, affect the student/trainee controller and not the quality of service provided by the ANSP.



The following table, which could be used during the formal assessment of the OJT, has been developed using the performance objectives from an approved OJT training course. This table is merely an example of how a checklist is constructed using the performance objectives as “Prime tasks” and “Sub tasks”. The table includes a “Remarks” column for each sub-task and a “Conclusion” box where the overall outcome of the assessment may be recorded.

*Note; Action verbs, at level 3 or higher, taken from the “EATM Training Progression and Concepts” (EATM 2004 – T 38), are used in writing the sub tasks to give a clear definition to the performance objectives.*

<b>Prime Tasks</b>	<b>Sub Tasks</b>	<b>Remarks</b>
<b>Preparation for instruction</b>	Verify current level of ability of student/trainee controller. Consult previous training reports for evidence. Choose objectives and time restrictions from relevant training plan.	
<b>Preparation of the student/trainee controller for training</b>	Carry out a pre-training briefing. Provide thorough explanation and demonstration of the objectives, activities and tasks as appropriate.	
<b>Instruct, monitor and provide corrective assistance to the student/trainee</b>	Ensure that the student/trainee controller participates in decision-making process. Confirm the professionalism of the student's/trainee controller's decision-making process. Evaluate misconceptions and errors in an appropriate manner. Provide an appropriate level of support. Ensure student/trainee controller is not overloaded. Analyse the need to “take over” from student/trainee controller. Execute the taking over of control in such a way that the student/trainee's learning is enhanced. Maintain control by not allowing safety to be compromised in any way or under any circumstances. If necessary demonstrate when prompted to do so by student/trainee uncertainty.	

<b>Evaluate and debrief student/trainee</b>	<p>Monitor the student's/trainee controller's abilities and performance against the objectives outlined during briefing.</p> <p>Ensure the student/trainee controller has recovered sufficiently in order to be receptive to feedback.</p> <p>Ensure the student/trainee controller comments on his achievements (or lack of them) and that all important aspects are recorded.</p> <p>Provide factual feedback that is affirming (strengths) as well as remedial (weaknesses).</p>	
<b>Make available the requisite written reports</b>	<p>Provide clear, concise and understandable written information.</p> <p>Provide essential information that is factual and verifiable</p>	
<b>Take appropriate follow up action</b>	<p>Organise the referral of unresolved problems to the appropriate person.</p> <p>Provide a clear, factual and unbiased account of the problem.</p>	
<b>Conclusion</b>		

### 11.2.3.2 *Additional means of confirming OJTI competence*

The student/trainee controllers should have the opportunity to provide feedback on the actual performance of the OJTI during a period of OJT. All students/trainees are subjected to milestone or summative assessments in the normal course of OJT. A suitably trained but independent OJTI or assessor would, as a rule, conduct summative assessments. During the summative assessment and as part of a complete feedback process, the student/trainee controller should be asked pertinent closed questions relating to the performance of the OJTIs who have been responsible for their training. The following check list is derived from the OJTI performance objectives. The checklist identifies key tasks and is addressed to the student/trainee controller. The questions are deliberately closed to avoid unsolicited opinion. The table concludes with an "Overall comment" box.

#### Did your OJTI:

Key Task	Yes	No
Carry out a pre-training briefing?		
When required, did he/she conduct a demonstration and did he/she provide you with a thorough explanation of the objectives, activities and tasks?		
Give you a feeling that he/she was "on top of things"?		
Encourage you to participate in decision-making process?		
Confirm the level of your professionalism and decision making process?		
Rectify any misconceptions you may have had and correct your errors in an appropriate manner?		
Offer an appropriate level of support?		
Ensure that you were not overloaded?		
Take over control in such a way that your learning was enhanced?		
Continuously monitor your abilities and performance and give you feedback against aims and objectives outlined in briefing?		

Allow you to recover sufficiently (after working) in order that you were receptive to feedback?		
Encourage you to comment on your achievements (or lack of them) and ensure that all-important aspects were dialogued?		
Provide factual feedback that was affirming (strengths) and remedial (weaknesses)?		
<b>Overall comment</b>		

Over several summative assessment interviews the strengths and shortcomings of individual OJTIs will become apparent. Repetitive comments by the students/trainee controllers will give a strong indication of the effectiveness or deficiencies of specific OJTIs.

The comments obtained could point the way towards a need for remedial training for an individual OJTI or even a review of the training system should the shortcomings be widespread.

OJTIs should have the opportunity to exercise the privileges of the OJTI licence endorsement on a regular basis. Regardless, refresher training should be given to OJTIs at least every 5 years (*ATCO Development Training – OJTI Refresher Course EATM 2001- T18*).

## **11.3 Performance Objectives for Competence Assessors**

### **11.3.1 Role of the Competence Assessor**

ESARR 5 requires that the Designated Authority “approve such personnel, as it sees fit, to conduct examinations or assessments, as it requires, to ensure that applicants for an ATC licence or certificate of competence are competent and meet the appropriate requirements”.

It is considered appropriate that the competence of those responsible for confirming both the first competence and the ongoing competence of air traffic controllers at an operational unit should also be subject to a quality check or assessment conducted by a person approved by the Designated Authority.

During the process of approving the appointment of competence assessors, the Designated Authority, supported by the ANSP, should produce a set of supporting performance objectives. These will be used to define the required training of assessors and, thereafter, to confirm their ongoing competence. For the purposes of this document two separate roles for competence assessors are described - Competence Assessor and the Local Competence Assessor. The objective is to describe the different functions and not to propose that these are two separate positions. It is quite possible that both functions will be carried out by the same person.

**Competence Assessor** refers to the designated and approved controller who is responsible for conducting competence assessments for the issue of a Licence or Certificate of Competence for the first time with its associated Rating Endorsement and Unit Endorsement in the case of a Student controller, or new Unit Endorsement(s) in the case of a Trainee controller, or the issue of a licence endorsement for an OJTl.

**Local Competence Assessor** refers to the controller who is responsible for confirming the maintenance of competence by the controllers for whom he or she is responsible.

### 11.3.2 The Competence Assessor

The competence assessor is directly accountable to the Designated Authority in that he recommends the issue of a licence with the associated ratings and endorsements for the first time or for additional Unit endorsements.

In order to assess the competence of the competence assessor, performance objectives must be developed. These will be used to define the required training of assessors and thereafter, to confirm their ongoing competence. The following table could be used for the formal assessment of the competence assessor. This table is merely an example of how a checklist is constructed using the performance objectives as “Prime tasks” and “Sub tasks”. The table includes a “Remarks” column for each sub-task and a “Conclusion” box where the overall outcome of the assessment may be recorded.

*Note; Action verbs, at level 3 or higher, taken from the “EATM Training Progression and Concepts” (EATM 2004 – T 38), are used in writing the prime tasks to give a clear definition to the performance objectives.*

Prime Tasks	Sub Tasks	Remarks
Briefing	The student/trainee controller is fully briefed before the assessment. The student/trainee controller is aware of the implications of the assessment.	
Collect and assess performance evidence by observation	Real time notes are taken. Notes correctly reflect occurrences during the assessment. Reconstruction of events from notes is possible. The assessor is as unobtrusive as possible. Performance is accurately assessed against the critical or safety critical	

	objectives of the unit training plan.	
<b>Confirm observations and evidence through the use of appropriate questions</b>	Questions asked are valid and unambiguous. The assessor adopts a positive and non-aggressive attitude.	
<b>Collect, assess and record supporting evidence</b>	Evidence can be reliably attributed to a specific student/trainee controller. Evidence is sought from formal summative reports. Evidence is supplemented where necessary from informal sources (discussions). Where additional evidence is gathered informally it is accurately recorded. The source of evidence gained informally is credited and recorded. When the student/trainee controller makes statements directly relating to performance, they are correctly recorded.	
<b>Prepare reports</b>	Evidence and assessment decisions are recorded. Reports are made in accordance with unit procedures. Recommendations for remedial training, where required, are realistic in both time and content. Recommendations for accelerated training are realistic. Confidentiality is maintained.	
<b>Discuss the outcome with student/trainee controller</b>	A comprehensive debrief is carried out.	
<b>Conclusions</b>		

### 11.3.3 The Local Competence Assessor

The local competence assessor is responsible for confirming that the controllers at the Unit are competent and remain competent in carrying out their licensed tasks.

In order to assess the competence of the local competence assessor, performance objectives must be developed. These will be used to define the required training of assessors and thereafter, to confirm their ongoing competence. The following table could, therefore, be used during the formal assessment of the local competence assessor. This table is merely an example of how a checklist is constructed using the performance objectives as “Prime tasks” and “Sub tasks”. The table includes a “Remarks” column for each sub-task and a “Conclusion” box where the overall outcome of the assessment may be recorded.

*Note; Action verbs, at level 3 or higher, taken from the “EATM Training Progression and Concepts” (EATM 2004 – T 38), are used in writing the prime tasks to give a clear definition to the performance objectives.*

Prime Tasks	Sub Tasks	Remarks
<b>Briefing</b>	The controller is fully briefed before the assessment. The controller is aware of the implications of the assessment.	
<b>Collect and assess performance evidence by observation</b>	Real-time notes are taken. Notes accurately represent occurrences during the assessment. Reconstruction of events from notes is possible. The assessor remains as discreet as possible. The assessment is properly carried out. Performance is accurately assessed against the requirements for air traffic controllers.	
<b>Ensure observations by appropriate</b>	Questions asked are valid and unambiguous. The assessor adopts a positive,	

<b>questions</b>	non-aggressive attitude.	
<b>Collect, assess and record supporting evidence</b>	<p>Evidence can be reliably attributed to a particular controller.</p> <p>Evidence is sought from the unit competence records.</p> <p>Where additional evidence is gathered it is correctly recorded.</p> <p>Where the controller makes claims directly relating to performance under review, these statements are correctly recorded.</p> <p>All relevant evidence is considered</p>	
<b>Prepare Reports</b>	<p>Evidence and assessment decisions are recorded.</p> <p>Reports are made in accordance with unit procedures.</p> <p>Recommendations for remedial training, where required, are realistic in both time and content.</p> <p>Confidentiality is maintained</p>	
<b>Discuss the outcome with the controller</b>	<p>A comprehensive debrief is carried out.</p> <p>Confidentiality is maintained.</p>	
<b>Conclusions</b>		



## REFERENCES

- EATMP Human Resources Team (2004) –L2. *European Manual of Personnel Licensing - Air Traffic Controllers*. HUM.ET1.ST08.10000-STD-01 Edition 2.0. Released Issue. Brussels: EUROCONTROL.
- EATMP Human Resources Team (2001). *European Manual of Personnel Licensing - Air Traffic Controllers: Guidance on Implementation*. HUM.ET1.ST08.10000-GUI-01 Edition 1.0. Released Issue. Brussels: EUROCONTROL.
- EATM Human Resources Team (2003a). *Guidelines for Refresher Training for Air Traffic Controllers*. HRS/TSP-004-GUI-04. Edition 1.0 Released Issue. Luxembourg: EUROCONTROL.
- EATM Human Resources Team (2003b). *Guidelines for Controller Training in the Handling of Unusual/Emergency Situations*. HRS/TSP-004-GUI-05. Edition 2.0 Released Issue. Brussels: EUROCONTROL.
- EATM Human Resources Team (2003c). *Unusual/Emergency Situations Training*. HRS/TSP-003-CBT-11. Edition 1.0 Released Issue (CD-ROM). Luxembourg: EUROCONTROL.
- EUROCONTROL Safety Regulation Commission (SRC) (2002). EUROCONTROL Safety Regulatory Requirements (ESARR). ESARR 5: ATM Services' Personnel. Edition 2.0 Released Issue. Brussels: EUROCONTROL.

Page intentionally left blank

## ABBREVIATIONS AND ACRONYMS

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

ALRTF	ATCO Licensing Review Task Force
AMC	Acceptable Means of Compliance
ANSP	Air Navigation Service Provider
ATC	Air Traffic Control
ATCO	Air Traffic Controller / Air Traffic Control Officer (US/UK)
ATM	Air Traffic Management
CBT	Computer-based Training
EATCHIP	European ATC Harmonisation and Integration Programme ( <i>renamed 'EATMP' in February 1999 and 'EATM' in May 2003</i> )
EATM(P)	European ATM (Programme) ( <i>known as 'EATCHIP' until January 1998</i> )
ECAC	European Civil Aviation Conference
ESARR	EUROCONTROL Safety Regulatory Requirement(s) (SRC)
ET	Executive Task ( <i>EATCHIP/EATMP</i> )
HRT	Human Resources Team ( <i>EATCHIP/EATM(P)</i> )
HUM	Human Resources (Domain) ( <i>EATCHIP/EATMP</i> )
IANS	Institute of Air Navigation Services ( <i>EUROCONTROL Luxembourg</i> )
IFATCA	International Federation of Air Traffic Controllers' Associations
OJTI	On-job-training instructor
RTF	Radiotelephone / Radiotelephony
SD	Senior Director, EATM Service Business Unit ( <i>EUROCONTROL Headquarters</i> )
SRC	Safety Regulation Commission ( <i>EUROCONTROL</i> )

Page intentionally left blank

## **CONTRIBUTORS**

ATCO Licensing Review Task Force

### **NAME**

### **STATE/ORGANISATION**

#### **Chairman**

Mr Brian Considine, Chairman

EUROCONTROL DAS/HUM

#### **Members**

Mr Paul Atherton  
Ms Liliana Cosme  
Mr Fernando Cesar  
Mr Peter Gassen  
Mr Eamon O'Malley  
Mr Bruno Villemeont  
Mr Bogdan Braguta  
Mr Michel Pistre  
Ms Anna Kouvaritaki  
Mr Bjorn Ramfjord  
Mr Markus Winkler  
Mr Christian Olinescu

UK  
Portugal  
Portugal  
Germany  
Ireland  
France  
EUROCONTROL SRU  
EUROCONTROL IANS  
Greece  
Norway  
Austrocontrol  
Romania

#### **Other Contributor**

Mr Phil Wildey

EUROCONTROL IANS

#### **Document configuration**

Mrs Ciara Lyons

EUROCONTROL DAS/HUM