European Aviation Safety Agency

NOTICE OF PROPOSED AMENDMENT

NPA 2012-18 (C)

RMT.0153 & RMT.0154 (ATM.003(a)&(b))

Licensing and medical certification of air traffic controllers

NPA 2012-18 (C)

Regulatory Impact Assessment

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Background

Regulation (EC) No 216/2008, as amended by Regulation (EC) No 1108/2009 (the Basic Regulation), establishes an appropriate and comprehensive framework for the definition and implementation of common technical requirements and administrative procedures in the field of civil aviation. Directive 2006/23/EC of the European Parliament and of the Council on a Community air traffic controller licence has therefore been repealed, without prejudice to the certification or licensing of persons and organisations already carried out in accordance with that directive. The Basic Regulation empowers the Commission to adopt Implementing Rules for air traffic controller licensing and associated approvals, which shall reflect the state of the art, including best practices and scientific and technical progress, in the field of air traffic controller training. Furthermore, the Basic Regulation requires that Implementing Rules be initially developed on the basis of the provisions of Directive 2006/23/EC of the European Parliament and of the Council on a Community air traffic controller licence.

The proposed rules have taken into account Commission Regulation (EU) No 805/2011 laying down detailed rules for air traffic controllers' licences and certain certificates pursuant to the Basic Regulation, as well as the already existing Community legislation under the Single European Sky framework and applicable international standards and recommended practices published by ICAO (i.e. the annexes) on the basis of Article 37 of the Chicago Convention, based on Article 2(2)(d) of the Basic Regulation, which calls upon the Agency to assist Member States in fulfilling their obligations under the Chicago Convention by providing a basis for a common interpretation and uniform implementation of its provisions, and by ensuring that its provisions are duly taken into account when drafting the Implementing Rules.

The subject Notice of Proposed Amendment (NPA) addresses the issues with regard to the licensing and medical certification of air traffic controllers and proposes detailed requirements, accompanied by Acceptable Means of Compliance and Guidance Material where necessary for all aspects governing the access to this safety-related aviation profession, as well as for exercising the privileges granted by the air traffic controller licence. The proposed rule in this NPA aims at filling the gaps between the high level requirements set out as safety objectives in the relevant essential requirements of Regulation (EC) No 216/2008 and the currently applicable Regulation (EU) No 805/2011, which although already started the implementation of the said essential requirements, it did not accomplish this task fully.

Scope of the draft rule

- Conditions for the issue, suspension, and revocation of licences of air traffic controllers and student air traffic controllers, as well as of associated ratings and endorsements, and the privileges and responsibilities of the licence holders.
- Conditions for the issue, limitation, suspension, and revocation of medical certificates for air traffic controllers and student air traffic controllers, as well as the privileges and responsibilities of the holders of medical certificates.
- Certification of aero-medical examiners and aero-medical centres for air traffic controller and of air traffic controller training organisations as well as persons involved in the training, testing, and checking of applicants.

- Conditions of the validity, renewal, revalidation, and use of such licences, ratings, endorsements, and certificates.

Issues

The continuous growth of aviation in Europe is challenging, in particular with regard to the key safety factors of ATM/ANS. Therefore, necessary risk mitigation measures need to be established to ensure safety through a harmonised, holistic regulatory approach across the Member States.

The current status of the harmonisation of the licensing of air traffic controllers in the European Union, following the implementation of Regulation (EU) No 805/2011, raises the following general issues:

- the 'total system' approach cannot be fully implemented as long as the remaining gaps between Regulation (EU) No 805/2011 and the Basic Regulation are not filled with the necessary rules;
- there are potential concerns on the mutual recognition of licences in practical terms;
- the update of certain requirements within the scope of Regulation (EU) No 805/2011 is outside of the remit of the EU legislative system and remains therefore uncertain and too time-consuming (e.g. initial training, medical requirements);
- some rating and rating endorsement pairings are only based on national requirements, which might prevent the mobility of air traffic controllers;
- the oversight of the competent authorities by EASA cannot bring the expected safety benefits without further detailed rules.

Without further harmonisation, the current situation would turn into a more problematic development over time.

While draft rules shall be developed[1], their content might follow different options which may have different types of impacts on safety, social, economic, proportionality, and regulatory coordination and harmonisation when they are compared to the development of the current situation. In such cases, they are subject to an analysis called regulatory impact assessment (RIA). Based on the identified general issues, this analysis has to assess the relevant objectives to be achieved and which options could propose the best answer.

The draft rules consist of a cover Regulation (four different annexes[2]), which addresses the issues with regard to the licensing and medical certification of air traffic controllers and propose detailed requirements, accompanied by Acceptable Means of Compliance and Guidance Material where necessary for all aspects governing the access to this safety-related aviation profession, as well as for exercising the privileges granted by the air traffic controller licence.

Based on the general issues identified above, the following specific issues are presented in the RIA report:

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[1] Regulation (EU) No 805/2011, Whereas (13): *'In order to enhance the confidence of Member States in each other's air traffic controller' licensing systems, common rules for obtaining and maintaining licences are indispensable.'*

[2] Annex I — Part-ATCO — Requirements for the licensing of air traffic controllers;
Annex II — Part ATCO-AR — Requirements for competent authorities;
Annex III — Part ATCO-OR — Requirements for air traffic controller training organisations and aero-medical centres;
Annex IV — Part ATCO-MED — Medical requirements for air traffic controllers.

- Chapter 4 — Change of the surveillance rating system,
- Chapter 5 — Oceanic control rating endorsement,
- Chapter 6 — Validity of the unit endorsement,
- Chapter 7 — Assessment of the language proficiency,
- Chapter 8 — Instructors and assessors,
- Chapter 9 — Approach to initial training — transposition of the Common Core Content,
- Chapter 10 — Requirements for training organisations,
- Chapter 11 — Medical requirements.

Note:

There are open issues which have not been fully addressed during the preparation of this NPA. They are addressed to stakeholders' consultation in the Explanatory Note, Chapter VII, with specific questions:

- *ATCO.B.001(b): options regarding the educational requirements as a licensing prerequisite to the student air traffic controller licence;*
- *ATCO.B.020: maximum validity period of 3 years for a unit endorsement;*
- *ATCO.B.030(d): justifications for requiring a language proficiency level higher than the operational level (level 4);*
- *Specific medical issues affecting the medical certification of air traffic controllers: diabetes, digestive system, genito-urinary system;*
- *Considering remotely operated towers in the context of air traffic controller licensing.*

Stakeholders are invited to comment on these open issues during the NPA public consultation process. The stakeholders input will provide key information for the finalisation of the draft rules.

Stakeholders

Air traffic controllers

There are approximately 17 500 air traffic controllers in the EASA Member States[3] 75 % thereof are air traffic controllers in operations, the rest percentage is split between air traffic controllers on other duties, air traffic controllers on-the-job trainees, air traffic controllers ab initio trainees.

Training organisations

There are approximately 120 existing certified training organisations. The majority of them (75 % approximately) is also air traffic service (ATS) providers or part of an ATS unit[4].

Air navigation service providers

There are approximately 290 air navigation service providers. 30 % of these ANSPs provide ATS and fall within the scope of these changes[5].

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[3] EUROCONTROL: ATM cost-effectiveness (ACE) 2010 Benchmarking Report with 2011–2015 Outlook (Final report: May 2012)

[4] EUROCONTROL Report on the SES Legislation Implementation, year 2011.

Competent authorities

There is generally one competent authority per Member State in the scope of air traffic controllers' activities.

Objectives

General objectives

Although the current situation in the EU Member States does not show significant safety risk, the overall analysis is that the continuous growth of aviation transport requests the establishment of the necessary measures to meet the Basic Regulation's general objectives[6], i.e.:

- to maintain a high uniform level of civil aviation safety; and
- to facilitate the free movement of persons, while providing a level playing field with proportionate and cost-efficient rules.

Therefore, these objectives are relevant for all issues. Cost-efficiency includes ensuring a smooth transition from national to common European requirements.

Specific objectives for air traffic control licensing

There are also specific objectives valid for several issues related to air traffic controller licensing:

- promotion of mutual recognition of licences;
- overall improvement of the competence of personnel;
- improvement of the effectiveness of the air traffic control system.

Further detailed specific objectives are generally different for each issue: e.g. for the issue 'Assessment of the language proficiency', one of the objectives is to 'Establish means to detect and mitigate possible language erosion'.

Options

Option 0 'Do nothing' is assessed for all the issues to indicate the development of the baseline scenario if the regulatory framework would remain as it is today. For each issue, the other options are:

(The preferred options are displayed in bold)

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[5] EUROCONTROL Report on the SES Legislation Implementation, year 2011.

[6] Article 2 of Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

Change of the surveillance rating system

Option 1: Technology specific rating endorsements

- Is based on the current structure with APS and ACS rating accompanied by RAD and/or ADS rating endorsement.
- Requires a new MLAT rating endorsement used in parallel with RAD and ADS rating endorsement (to be repeated for each new surveillance technology).
- Results in the multiplication of rating endorsements (APS/RAD + ADS + MLAT or ACS/RAD + ADS + MLAT).

Option 2: Integrated surveillance ratings

- Integrates all technology specific aspects of the surveillance infrastructure into the rating training.
- No additional technology specific rating endorsements required.
- No further separate surveillance-related rating endorsements issued.

Oceanic control rating endorsement

Option 1: Establish the possibility of ACP–OCN pairing recognised at EU level

- Explicit provision allowing such pairing, which is then included in the European air traffic controller licence accordingly.
- Holders of this rating endorsement will also benefit from the EU-wide recognition of their privileges.

Validity of the unit endorsement

Option 1: Reduce the frequency of the assessment to the 12-month validity of the unit endorsement

Option 2: Establish a flexible system that can be adapted to the diversity of the air traffic control units

Assessment of the language proficiency

Option 1:

- Establish a validity period for expert level language proficiency (level 6) and require revalidation at intervals higher in proportion compared to lower proficiency levels.
- Incorporate relevant ICAO requirements into EU legislation with regard to the language assessment bodies.

Instructors and assessors

Option 1: Elaborate a new system for instructors and assessors

Approach to initial training — transposition of the Common Core Content

Option 1: Transposition

Transposition of the EUROCONTROL Specification into the EU legislation.

Option 2: Referencing

2a) Static referencing

The implementing measures refer to a specific edition of the EUROCONTROL Specification. Each new version requests to amend the existing implementing measures following the EASA rulemaking procedure and comitology (time-consuming).

2b) Dynamic referencing

The implementing measures will refer only to EUROCONTROL Specification, meaning its latest published edition. Such solution raises concerns related to legal certainty and reliability.

Requirements for training organisations

Option 1: Provide only AMC and GM related to Regulation (EU) No 805/2011

The Agency is only able to develop AMC/GM for the existing requirements and cannot add additional ones in the AMC or GM. Gaps therefore remain within the Basic Regulation.

Option 2: Comprehensive set of AMC and GM

Following the completion of the requirements of Chapter IV of Regulation (EU) No 805/2011 the Agency is able to develop AMC and GM to the necessary extent.

Medical requirements

Option 1: Transpose the current system of medical certification of air traffic controllers

Transpose the current system of medical certification of air traffic controllers into a common system to be included in the European legislative framework.

Option 2: New set of rules taking into account that they are not working in the aircraft environment

Create a new set of rules for medical certification of air traffic controllers taking into account that they are not working in the aircraft environment.

Conclusions

Summary of the main technical changes

The changes introduced to the technical requirements compared to Regulation (EU) No 805/2011 affect mainly the structure of ratings and rating endorsements, the validity of the unit endorsement, the validity of the language proficiency endorsement at expert level (level 6), the conditions to exercise the privileges of an OJTI endorsement, and the educational requirement as a licensing criterion, where two possible options are proposed. An additional change to the technical requirements compared to Regulation (EU) No 805/2011 is the implementation of ICAO Annex 1 by requiring training organisations to implement a management system to manage the safety of the services for those training organisations having an impact on aircraft operations.

Novelties proposed in the technical requirements compared to Regulation (EU) No 805/2011 are to be found in the requirements for instructor and assessor qualification and certification, in the training requirements, and the requirements applicable to language assessment bodies.

To facilitate the implementation of the State Safety Programme (SSP), the Agency is proposing with Annex II, Part-ATCO.AR, the requirements for the competent authorities to oversee the regulated personnel and organisations in full alignment with the relevant ICAO standards for the States' safety oversight systems. It should be highlighted, however, that the core of the authorities' tasks defined in the draft Implementing Rule are not fundamentally different from those that the competent authorities are already performing today.

Summary of the main impacts

The draft rules will have a positive impact on safety, social, and regulatory harmonisation aspects. They will require adaptation from stakeholders, which will create additional activities during a certain period of time. To allow for sufficient time to prepare for the necessary changes and to keep the potential burden induced by these changes to a minimum, an 18-month adaptation and transition period is proposed followed by additional timeframes available to implement the necessary changes (e.g. exchange of the grandfathered licences according to the new template, or issue assessor endorsements according to the new requirements). Further details on the adaptation period can be found in Articles 8 and 9 of the cover Regulation. Once implemented, the new rules will support a cost-efficient air traffic controller licensing scheme, and will contribute to the overall efficiency of the air traffic control system is Europe as well.

By meeting the objectives set in Chapter 3 and in the detailed Chapters 4 to 11, the overall impact is considered to be beneficial for the air traffic controller licensing activities.

Note: See Annex B, Table 10: Overview of the issues, objectives, options and impacts.

Stakeholders

- Air traffic controllers will benefit from:
  - more adequate ratings and endorsements (e.g. technology innovation followed by the surveillance rating system, oceanic control rating endorsement);
  - common training requirements, with clarifications on the level of the binding rules regarding initial training, and a first set of common requirements for unit and continuation training;
  - EU level playing field in language proficiency assessment;
  - EU level playing field in medical assessment;
  - potential extension of professional life when their licences cannot be maintained anymore (e.g. for medical reasons): the requirements on instructors and assessors will allow them to continue to provide their experience for specific types of training;
  - common licence format: facilitating the mutual recognition of the privileges.

  ➔ Overall, the above will ensure the mutual recognition of their licences at EU level, support their mobility and the acquisition of common competence across the EU Member States.
- Aero-medical examiners and centres will benefit from:
  - one clear set of requirements with the necessary flexibility via AMC and GM;
  - simple and straightforward implementation due to synergies with regard to the aviation professions and by providing the same framework for persons and organisations assessing both air traffic controllers and pilots.

  ➔ Overall, the above will enhance safety, level playing field, and cost-efficiency.
- Training organisation will benefit from:
  - common requirements at EU level on instructors and assessors;

- level playing field thanks to common requirements at EU level on the management system of organisations;
- flexible and proportionate requirements, e.g. for training organisations providing initial training only versus requirements for training organisations providing OJT, unit, and continuation training;
- proportionate SMS requirements clarifying when interfaces shall be foreseen with other aviation domains;
- potential new employment resources: the NPA allows air traffic controllers facing licence withdrawal (e.g. due to medical reasons) to provide their experience for specific types of air traffic controller trainings.

➔ Overall, the above will ensure safety, level playing field, and cost-efficiency.

- Air navigation service providers will benefit from:
  - potential employment shortage handled more easily thanks to higher mobility of air traffic controllers facilitated by the new rules;
  - quicker conversion when moving to another Member State due to uniform initial training and more harmonised unit training requirements;
  - the overall benefits of common requirements on training content and training organisation will ensure air traffic controllers with a common level of knowledge and skills supporting the management of the air traffic controllers daily activities.

  ➔ Overall, the above will enhance safety and cost-efficiency over time.
- Competent authorities will benefit from:
  - easier implementation and administration of the validity of the air traffic controller privileges (validity, revalidation, and renewal criteria established for all privileges; in addition correlation of the validity of the unit endorsement to the assessment of competence);
  - harmonised oversight requirements for air traffic controllers and training organisations, including harmonised oversight activities with FABs;
  - common approach for findings classification;
  - reducing the administrative effort and time currently attributed to regulatory coordination and harmonisation with ICAO (EASA ensuring mainly this role);
  - synergies of these rules with other aviation domains according to the 'total system approach'

  ➔ Overall, the above will enhance safety, oversight, and cost-efficiency over time.
- EASA will benefit from:
  - a single set of common rules facilitating oversight and standardisation, and diminishing differences in interpretation;
  - requirements for non-European air traffic controllers, training organisation providing services within the EU, and ensuring an equivalent level of safety.
- Across stakeholders:

- ➔ the implementation of the total system approach with proportionate requirements will enable synergies;
- ➔ the 18-month period for transitional arrangements and the additional months for the necessary actions on the certificates, etc., are deemed to be sufficient to ensure a smooth transitional period.

Open issues

The remaining open issues from the Explanatory Note will be dealt with following the receipt of the stakeholders input during the public consultation period. A relevant RIA might be performed on a case-by-case basis.

1 PROCESS AND CONSULTATION

The draft rules on the licensing and medical certification of air traffic controllers were developed by the Agency with the support of rulemaking groups comprising experts from national supervisory authorities, air navigation service providers, and different air traffic controller professional organisations. Further details on the rulemaking groups, their Terms of Reference, composition, and applicable procedures are to be found in the Explanatory Note.

In addition, the Agency also involved ad hoc expertise for subjects that have not been covered by the subject matter expertise of the rulemaking group members, which has been the case for example for the establishment of the ATCO medical requirements.

Furthermore, a rather extensive cooperation has been established with EUROCONTROL for various subjects as part of the EUROCONTROL-EASA working arrangement, via which EUROCONTROL experts assisted the Agency in the transposition of the ATCO Initial Training requirements, namely the EUROCONTROL Specification for Air Traffic Controller Common Core Content Initial Training as well as in the establishment of training requirements for unit and continuation training, whose issues are however not the subject of this impact assessment. EUROCONTROL also contributed to the development of the technical aspects of the amendment of the air traffic controller licensing scheme and carried out the analysis of the proposals of the rulemaking group and prepared the impact assessment for the changes proposed in the structure of ratings and rating endorsements, which is contained in Chapter 4 of this document.

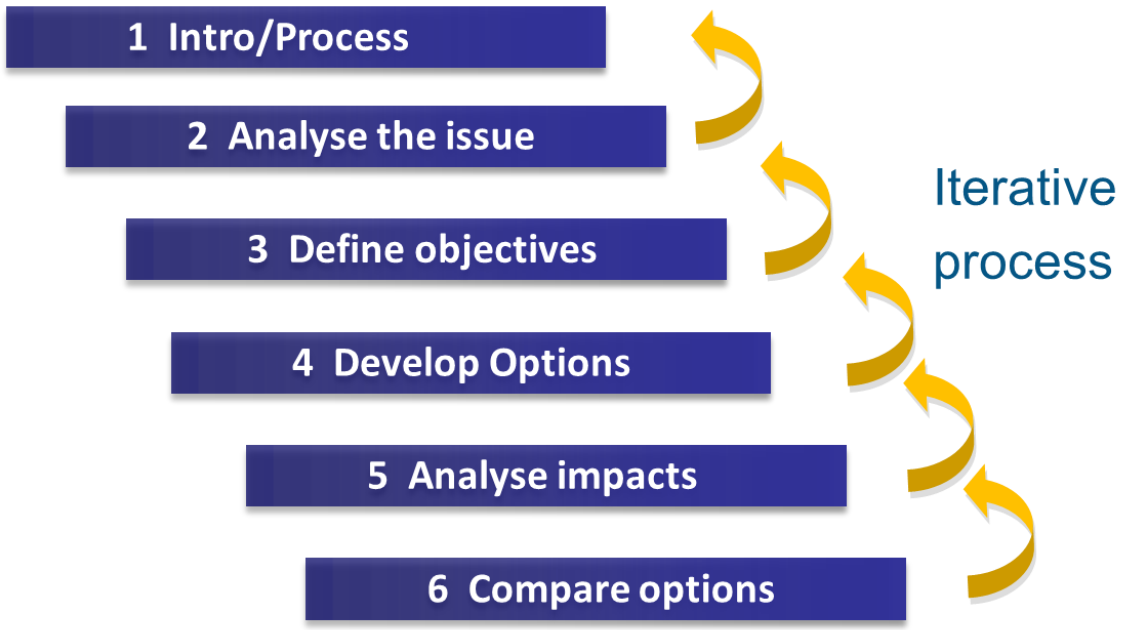
The analysis of the potential impact of the proposed changes has been running in parallel with the elaboration of the new draft provisions. For the analysis of certain issues outside expertise has been involved, while the analysis of other subjects has been completed by EASA experts based on the input received from the rulemaking group experts.

To collect data and support the assessment methodology the Agency requested Member States as well as the experts of the rulemaking group to respond to various questionnaires, detailed in Section 2.2 below.

2 METHODOLOGY AND DATA REQUIREMENTS

2.1 Report structure

Impact assessment is a process to provide justifications supporting a proposal according to logical steps:



These logical steps are also the core headings of the EASA regulatory impact assessment report.

Due to the fact that the content of this NPA on the licensing and medical certification of air traffic controllers is composed of several issues which have very different technical contents (see Chapter 3), the approach was to develop this structure for the RIA report:

- Chapter 1 gives a general introduction;
- Chapter 2 outlines the impact assessment methodology used;
- Chapter 3 summarises the issues to be analysed;
- Chapters 4 to 11 (one chapter per issue): each of these chapters has sections following the 6 logical steps;
- Chapter 12 presents the conclusion of the impact analysis for all these issues.

2.2 Data requirements

To collect data and support the assessment methodology the Agency requested Member States as well as the experts of the rulemaking group to respond to various questionnaires, as follows:

- questionnaire on various licensing-related issues, like minimum age, educational qualifications, issue, revalidation, and renewal of the unit endorsements; launched in 2010 — 19 responses received;
- questionnaire on national ratings and rating endorsements; launched in 2011 — 30 responses received;

- questionnaire on language proficiency issues; launched in 2012 — responses received from 9 Member States.

It should be noted, however, that while the first two questionnaires have been distributed to all EU and EASA Member States by using the Commission's Interactive Policy Making (IPM) tool, the third questionnaire has only been distributed to the members of the ATM-related rulemaking groups and other experts working in close cooperation with the Agency. Although the number of responses received to the third questionnaire is not considered to be representative of the whole EU, the answers from some major stakeholders give a good support for the analysis.

Table 1 — List of Member States' answers per questionnaire

Countries	*Various licensing-related issues*	*National ratings and rating endorsements*	*Language proficiency*
	Questionnaire distributed in 2010	Questionnaire distributed in 2011	Questionnaire distributed in July 2012
Austria	Y	Y	Y
Belgium	Y	Y	
Bulgaria	Y	Y	
Cyprus		Y	
Czech Republic	Y	Y	
Denmark	Y	Y	Y
Estonia	Y	Y	
Finland	Y	Y	Y
France	Y	Y	Y
Germany	Y	Y	Y
Greece		Y	
Hungary	Y	Y	
Iceland	Y	Y	
Ireland		Y	
Italy	Y	Y	
Latvia	Y	Y	
Lithuania		Y	
Luxembourg	Y	Y	
Malta		Y	
Netherlands		Y	
Norway		Y	
Poland	Y	Y	
Portugal		Y	Y
Romania		Y	
Slovakia	Y	Y	Y
Slovenia		Y	
Spain		Y	Y
Sweden	Y	Y	
Switzerland	Y	Y	Y
United Kingdom	Y	Y	
Total	**19**	**30**	**9**

Further data regarding the employment of air traffic controllers in the European Union and the number of training organisations have been collected from the publication of 'EUROCONTROL — ATM cost-effectiveness (ACE) 2010 Benchmarking Report with 2011–2015 Outlook' (Final report: May 2012).

2.3 Methodology to assess the options

As indicated in Section 2.1, once the issues have been analysed the objectives can be defined and options can be proposed to answer to these objectives and solve the issues. The analysis of the impacts of these options can be performed with different methodologies depending on the availability and types of data. In addition, one of the main principles of impact assessment is to provide a proportionate effort for the depth of the analysis in relation to the scale of the issue.
Considering the limited availability of data, which in addition are a mixture of qualitative and quantitative types, it was decided to use the multi-criteria analysis (MCA) to assess the options proposed to solve the issues. The following section explains the principles of the MCA and how it was applied in a proportionate way to the issues.

2.3.1 Applied methodology: multi-criteria analysis (MCA)

Multi-criteria analysis (MCA) covers a wide range of techniques that aim at combining a range of positive and negative impacts into a single framework to allow easier comparison of scenarios. Essentially, it applies cost-benefit thinking to cases where there is a need to present impacts that are a mixture of qualitative, quantitative, and monetary data, and where there are varying degrees of certainty. The MCA key steps generally include:

1. establish the criteria to be used to compare the options (these criteria must be measurable, at least in qualitative terms);
2. attribute weights to each criterion to reflect its relative importance in the decision;
3. score how well each option meets the criteria; the scoring needs to be relative to the baseline scenario;
4. rank the options by combining their respective weights and scores;
5. perform sensitivity analysis on the scoring to test the robustness of the ranking.

The criteria used to compare the options were derived from the Basic Regulation and the guidelines for Regulatory Impact Assessment developed by the European Commission. The principal objective of the Agency is to 'establish and maintain a high uniform level of safety' (Article 2(1) of the Basic Regulation). As additional objectives the Basic Regulation identifies environmental, economic, proportionality, and harmonisation aspects, which are reflected below.

These principles were fully applied for the analysis of the changes proposed in the structure of ratings and rating endorsements, Chapter 4: this is explained in the following Section 2.3.2. A lighter implementation of the MCA principles was applied for the other issues, based on the proportionality principle: this is explained in Section 2.3.3.

2.3.2 Multi-criteria analysis for Chapter 4 'Structure of ratings and rating endorsements'

Further to the explanation in Section 2.3.1, the following table shows the weights that were attributed to the individual groups of criteria. Based on the above considerations, and on the Agency's mandate, 'safety' received the highest weight, i.e. 3.

Table 2 — Assessment criteria for the MCA

Overall objectives	Specific objectives and assessment criteria	
	Weight	**Description**
Safety	3	Maintain or improve the level of safety.
Economic	1	Ensure cost-effectiveness. Ensure 'level playing field'.
Environmental	2	Avoid negative effects on the environment.
Social	1	Avoid negative effects on employment in Air Traffic Control. Promote high-quality jobs in the private sector for Air Traffic Control. Facilitate mobility.
Proportionality	1	Ensure proportionate rules for Small and Medium-sized Enterprises (SMEs), General Aviation, Business Aviation.
Regulatory harmonisation	2	Ensure full consistency with EU laws and regulations. Ensure compliance with ICAO Standards (if appropriate). Achieve the maximum appropriate degree of harmonisation within Europe.

Environmental impacts are attributed a weight of 2 as the Agency has certain specific responsibilities in this area related to noise and emissions. For the same reason impacts on other assessment areas are attributed a weight of 1 since these areas are to be duly considered when developing the Implementing Rules. Each option developed below will be assessed based on the above criteria. Scores are used to show the degree to which each of the options achieves the assessment criteria. The scoring is performed on a scale between –5 and +5. Table 3 below gives an overview of the scores and their interpretation.

Table 3: Scores for the multi-criteria analysis

Score	Descriptions	Example for scoring options
+5	Highly positive impact	Highly positive safety, social or environmental protection impact. Savings of more than 5 % of annual turnover for any single firm; total annual savings of more than EUR 100 million.
+3	Medium positive impact	Medium positive social, safety or environmental protection impact. Savings of 1–5 % of annual turnover for any single firm; total annual savings of EUR 10–100 million.
+1	Low positive impact	Low positive safety, social or environmental protection impact. Savings of less than 1 % of annual turnover for any single firm; total annual savings of less than EUR 10 million.
0	No impact	
–1	Low negative impact	Low negative safety, social or environmental protection impact. Costs of less than 1 % of annual turnover for any single firm; total annual costs of less than EUR 10 million.
–3	Medium negative impact	Medium negative safety, social or environmental protection impact. Costs of 1–5 % of annual turnover for any single firm; total annual costs of EUR 10–100 million.

–5	Highly negative impact	Highly negative safety, social or environmental protection impact. Costs of more than 5 % of annual turnover for any single firm; total annual costs of more than EUR 100 million.

2.3.3 Multi-criteria analysis for the other issues

The other issues (chapters 5 to 12) have options which require less effort to select the preferred ones. In this case, the scoring of the impacts uses a simple scale with '+' and '–' to indicate the positive and negative impacts.

When in the very rare cases two '+' or two '–' are used, this is to show that this impact has a different order of magnitude than the ones requiring a single '+' or '–' .

3 OVERVIEW OF THE ISSUES, OBJECTIVES AND OPTIONS

3.1 General

Following the adoption of Regulation (EU) No 805/2011, the so-called 'first phase' of the extension of the Agency's remit to ATM/ANS, a number of regulatory gaps has been identified that still need to be addressed in the second phase. These 'gaps' include technical, editorial, and legal questions, most of which are not expected to have a major impact on stakeholders (see Explanatory Note).

For the changes introduced by this NPA there are two types of issues, as presented below.

- Issues which are presented in this RIA report are the ones which have been fully assessed with the selection of a preferred option. They were identified by the Agency with the support of the ATM.003 rulemaking group and comprise of the following:
  - Chapter 4 — Change of the surveillance rating system,
  - Chapter 5 — Oceanic control rating endorsement,
  - Chapter 6 — Validity of the unit endorsement,
  - Chapter 7 — Assessment of the language proficiency,
  - Chapter 8 — Instructors and assessors,
  - Chapter 9 — Approach to initial training — transposition of the Common Core Content,
  - Chapter 10 — Requirements for training organisations,
  - Chapter 11 — Medical requirements.
- Open issues which have not been fully solved during the preparation of this NPA are addressed via the stakeholders' consultation in the Explanatory Note with specific questions.

  For information, the open issues in Chapter VII of the Explanatory Note are the following:
  - ATCO.B.001(b) offers options regarding the educational requirements as a licensing prerequisite to the student air traffic controller licence;
  - ATCO.B.020: maximum validity period of 3 years for a unit endorsement;
  - ATCO.B.030(d): justifications for requiring a language proficiency level higher than the operational level (level 4);

- specific medical issues affecting the medical certification of air traffic controllers (e.g. ATCO.MED.B.020 on the digestive system; ATCO.MED.B.025 regarding diabetes; MED.ATCO.B.035 regarding the genito-urinary system);
- considering remotely operated towers in the context of air traffic controller licensing.

Stakeholders are invited to comment on these open issues during the NPA public consultation process. The rationale of these issues is first explained and then followed by a presentation of the options. This stakeholder input will provide key information to finalise the Opinion of the Agency and its related material (IRs, AMC and GM).

3.2 Approach followed to analyse the issues

The issues

These issues may affect stakeholders or may have safety implications, and are therefore the subject of this regulatory impact assessment. The draft rules consist of the so-called cover Regulation, four different annexes and several further appendices, which contain the Implementing Rules. The draft Decision of the EASA Executive Director is also attached, which contains the proposed associated AMC and GM when relevant.

These annexes are the following:

- Annex I — Part-ATCO — Requirements for the licensing of air traffic controllers,
- Annex II — Part ATCO-AR — Requirements for competent authorities,
- Annex III — Part ATCO-OR — Requirements for air traffic controller training organisations and aero-medical centres,
- Annex IV — Part ATCO-MED — Medical requirements for air traffic controllers.

Annexes I, III, and IV are assessed in the report. Annex II is partially assessed for the subsection related to aero-medical certification. The rest of Annex II is considered to be of technical, editorial, and legal nature, most of which are not expected to have a major impact on stakeholders.

The following subparts of Annex I are subject to several detailed RIA issues:

Annex I subparts in the RIA report	***RIA chapters***
Subpart B — Licences, ratings and endorsements	4 — Change of the surveillance rating system 5 — OCN rating endorsement 6 — Validity of unit endorsement 7 — Language proficiency
Subpart C — Instructor and assessor certification	8 — Instructors and assessors
Subpart D — Air traffic controller training	9 — Approach to initial training — Transposition of the Common Core Content

Each of the Annexes III and IV[7] has been assessed with a RIA on their whole content without distinguishing specific subparts.

Each of these issues are summarised in Table 4 with the corresponding objectives and options enabling the achievement of the objectives and solving the issues.

[7] Annex IV analysis includes also the Annex II subsection related to aero-medical certification.

Stakeholders affected — General information

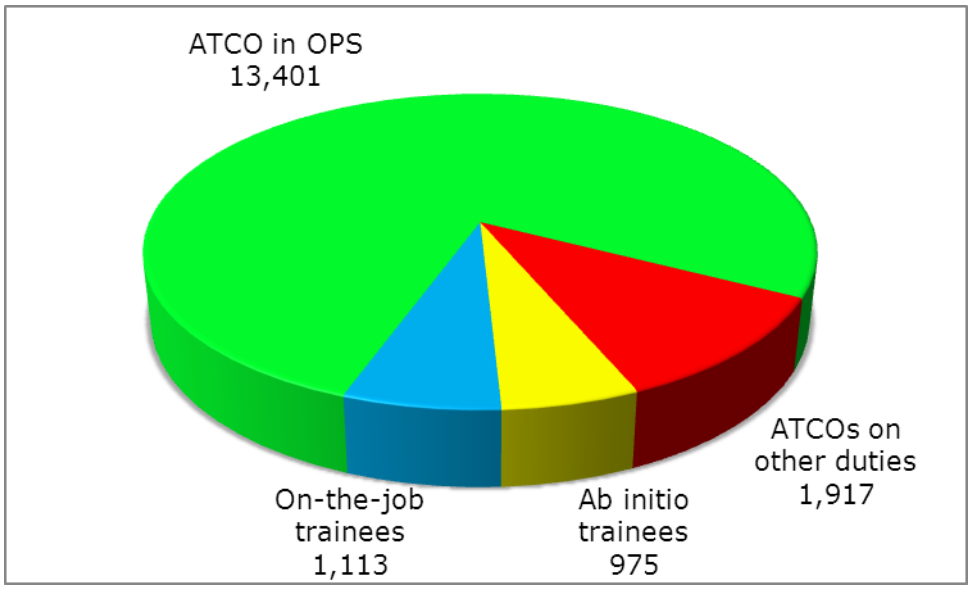
Air traffic controllers

Table 3: Overview of air traffic controllers' employment, 2010[8]

Air navigation service providers	ATCO in OPS	ATCOs on other duties	Ab initio trainees	On-the-job trainees	Total staff
Aena	855	299	0	46	**1 200**
ANS CR	189	11	20	21	**241**
Austro Control	270	20	60	45	**395**
Avinor	371	94	36	32	**533**
Belgocontrol	220	35	0	11	**266**
BULATSA	195	66	0	18	**279**
DCAC Cyprus	70	7	3	0	**80**
DFS	1 716	7	176	131	**2 030**
DSNA	2 699	369	315	304	**3 687**
EANS	41	4	8	0	**53**
ENAV	1 336	170	51	46	**1 603**
Finavia	194	27	0	1	**222**
HCAA	530	150	0	0	**680**
HungaroControl	182	11	9	12	**214**
IAA	212	40	20	25	**297**
LFV	531	120	0	52	**703**
LGS	81	0	0	0	**81**
LPS	100	23	7	3	**133**
LVNL	182	36	20	23	**261**
MATS	56	0	0	0	**56**
MUAC	227	30	45	13	**315**
NATS	1 396	134	88	157	**1 775**
NAV Portugal	209	39	0	5	**253**
NAVIAIR	197	67	16	20	**300**
Oro navigacija	82	11	0	1	**94**
PANSA	404	13	31	61	**509**
ROMATSA	440	57	28	14	**539**
Skyguide	326	69	42	64	**501**
Slovenia Control	90	8	0	8	**106**
Total	**13 401**	**1 917**	**975**	**1 113**	**17 406**

[8] EUROCONTROL: ATM cost-effectiveness (ACE) 2010 Benchmarking Report with 2011–2015 Outlook (Final report: May 2012). Prepared by the Performance Review Unit (PRU) with the ACE 2010 Working Group. Final Report. May 2012. Available online at https://www.eurocontrol.int/sites/default/files/content/documents/single-sky/pru/publications/ace/ace-2010-benchmarking-report.pdf

Figure 1: Share of air traffic controllers per general category, 2010[9]



Training organisations

Based on information from the EUROCONTROL Report on the SES Legislation Implementation, year 2011 **[4]**, there are approximately 120 certified training organisations. The majority of them (75 % approximately) is also air traffic service (ATS) providers or is part of an ATS unit.

Air navigation service providers

Based on information from the EUROCONTROL Report on the SES Legislation Implementation, year 2011 **[4]**, there are approximately 290 air navigation service providers. 30 % of these ANSPs provide ATS and are therefore affected by the change.

Competent authorities

There is generally one competent authority per Member State in the scope of air traffic controllers' activities.

[9] EUROCONTROL — ATM cost-effectiveness (ACE) 2010 Benchmarking Report with 2011–2015 Outlook (Final report: May 2012).

The objectives

General objectives

Although the current situation in the EU Member States does not show significant safety risk, the overall analysis is that the continuous growth of aviation transport requests the establishment of the necessary measures to meet the Basic Regulation's general objectives[10]:

- to maintain a high uniform level of civil aviation safety; and
- to facilitate the free movement of persons, while providing a level playing field with proportionate and cost-efficient rules.

Therefore, these objectives are relevant for all issues. Cost-efficiency includes ensuring a smooth transition from national to common European requirements.

Specific objectives for air traffic control licensing

There are also specific objectives valid for several issues related to air traffic controller licensing:

- promotion of mutual recognition of licences;
- overall improvement of the competence of personnel;
- improvement of the effectiveness of the air traffic control system.

Further detailed specific objectives are generally different for each issue: e.g. for the issue 'Assessment of the language proficiency' one of the objectives is to 'Establish means to detect and mitigate possible language erosion'.

The options

While different options have been studied, only the most significant and relevant ones have been detailed in the RIA chapters. Option 0 'Do nothing' is assessed for all the issues to indicate the baseline scenario if the regulatory framework would remain as it is today.

All these options refer only to draft common rules as already foreseen by recital 13 of Regulation (EU) No 805/2011:

'In order to enhance the confidence of Member States in each other's air traffic controller' licensing systems, ***common rules for obtaining and maintaining licences are indispensable.****'*

The RIA issues are presented in Chapters 4 to 11. The options have been assessed according to the methodology described in Chapter 2. An overall conclusion is presented in Chapter 12.

3.3 Overview of the issues, objectives, and options

The following table summarises the issues addressed by this report and indicates for each of them the related objectives and options.

Due to limited space in this table, option 0 is not described as it is a mere prolongation of the issues over time. Option 0 is detailed in each of the RIA chapter related to one issue.

[10] Article 2 of Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.3.2008, p. 1).

Table 4: Overview of issues, objectives, and options

Issues*	**Objectives**	**Options** (other than 'do nothing')
4. CHANGE OF THE SURVEILLANCE RATING SYSTEM		
The issue is to consider if it is more appropriate to integrate training on technological specificities into the rating training rather than keeping it in separate rating endorsements based: • on the developments in surveillance technology: in a fully integrated surveillance environment the surveillance technology used is less important than the result of the data processing in a surveillance data processing system; and • on the need for changes in the EU system of ratings and rating endorsements: the current rating endorsement structure where RAD and ADS are individual endorsements that can be assigned independently is not considered 'future-proof' and sufficient, first as ADS seems to be used in addition to, not instead of, the RAD rating endorsement, and second due to emerging surveillance technologies, notably multilateration.	• Maintain the current high level of safety in a changing technological environment; and • disconnect the licensing scheme from surveillance technologies to accommodate technological progress and limit the necessary adjustments thereto.	**Option 1: Technology specific rating endorsements** • Is based on the current structure with APS and ACS rating accompanied by RAD and/or ADS rating endorsement; • requires a new MLAT rating endorsement used in parallel with RAD and ADS rating endorsement (to be repeated for each new surveillance technology); • results in the multiplication of rating endorsements (APS/RAD + ADS + MLAT or ACS/RAD + ADS + MLAT). **Option 2: Integrated surveillance ratings** • Integrates all technology specific aspects of the surveillance infrastructure into the rating training; • no additional technology specific rating endorsements required; • no further separate surveillance-related rating endorsements issued.
5. OCEANIC CONTROL RATING ENDORSEMENT		
The issue is that under the current EU regulatory framework only the area control surveillance rating (ACS) can be accompanied by the oceanic control rating endorsement (OCN). The attachment of the OCN rating endorsement to the area control procedural rating (ACP) is only possible via national rules, even though oceanic control is being exercised in combination with procedural area control in several Member States.	• Ensure smooth transition from OCN attached as national rating endorsement to the ACP rating to common European requirements. • Ensure recognition of air traffic controller licences at EU level and thus facilitate their mobility.	**Option 1:** Establish the possibility of ACP–OCN pairing recognised at EU level. • Explicit provision allowing such pairing, which is then included in the European air traffic controller licence accordingly. • Holders of this rating endorsement will also benefit from the EU-wide recognition of their privileges.
6. VALIDITY OF THE UNIT ENDORSEMENT		
The issue is the current discrepancy and lack of clarity resulting	• Correlate the frequency of the	**Option 1:** Reduce the frequency of the

Issues*	Objectives	Options (other than 'do nothing')
from the fact that checking competence of air traffic controllers is not a mandatory criterion for the revalidation of the unit endorsement, since: • Article 12 of Regulation (EU) No 805/2011 defines 12 months as the validity of a unit endorsement, while • the competence of the air traffic controller shall be assessed at least once every 3 years, as required by Part C of Annex II to the same Regulation.	assessments with the validity of the unit endorsements and thus ensure a clear link between the prolongation of the privileges and the ongoing capacity to meet those challenges. • Facilitate administration.	assessment to the 12-month validity of the unit endorsement. **Option 2:** Establish a flexible system that can be adapted to the diversity of the air traffic control units.
7. ASSESSMENT OF LANGUAGE PROFICIENCY		
The issue is to ensure the harmonisation of language assessments to a greater extent, as well as to safeguard the continuous maintenance of language skills at all proficiency levels. These specific gaps were identified: • despite the existing guidance at ICAO level on the criteria applicable to language assessment bodies; at European level no detailed expectations have been formulated so far in relation to these organisations; • currently there is no validity attached to the language proficiency expert level (level 6); however, experience shows that language erosion affects all proficiency levels, although to a different level and intensity.	• Limit the safety risks originating from the lack of requirements applicable to the assessment of language proficiency. • Eliminate the possibility of maintaining expert level proficiency based on eventually inadequate assessments. • Establish means to detect and mitigate possible language erosion.	**Option 1:** • Establish a validity period for expert level language proficiency (level 6) and requires revalidation at intervals higher in proportion compared to lower proficiency levels. • Incorporate relevant ICAO requirements into EU legislation with regard to the language assessment bodies.
8. INSTRUCTORS AND ASSESSORS		
• Lack of current requirements to implement the BR in the field of persons responsible for providing practical training or for assessing air traffic controllers' skills; and • the diversity of national requirements for instructors and assessors creates concerns on the recognition of these privileges at EU level and may prevent air traffic controllers' mobility.	• Create adequate and proportionate rules for the qualification and certification of these personnel. • Establish common European categories for these personnel. • Provide for the necessary flexibility for specific cases.	**Option 1:** Elaborate a new system for instructors and assessors.
9. APPROACH TO INITIAL TRAINING — TRANSPOSITION OF THE COMMON CORE CONTENT		
• Recognition of student air traffic controller licences across EU Member States without creating social mobility concerns for air traffic controllers.	• Harmonise training contents for air traffic controllers initial training courses to ensure a uniform high	**Option 1: Transposition** Transposition of EUROCONTROL Specification

Issues*	Objectives	Options (other than 'do nothing')
• Allowing a flexible approach to the necessary updates of the technical content relevant to initial training while maintaining the long-term standardisation of initial training by a clear differentiation between binding and non-binding material. • Requirements relevant to the establishment of training courses, including performance objectives and examinations and assessments of applicants. • A uniform interpretation of the training objectives to reduce safety concerns as well as to establish harmonisation.	level of safety. • Train student air traffic controllers so that their licence represents a common level of knowledge and skills. • Establish clear European rules addressing air traffic controller initial training to enable mutual recognition of licences. • Allow flexibility in training with a clear separation of binding and non-binding provisions. • Establish a system allowing the timely review and update of the initial training content.	into the EU legislation. **Option 2: Referencing** **2a) Static referencing** The implementing measures refer to a specific edition of the EUROCONTROL Specification. Each new version requests the amendment of the existing implementing measures following the EASA rulemaking procedure and comitology (time-consuming). **2b) Dynamic referencing** The implementing measures will refer only to 'EUROCONTROL Specification', this meaning its latest published edition. Such solution creates concerns related to legal certainty and reliability.
10. REQUIREMENTS FOR TRAINING ORGANISATIONS		
• Continue the development of European common requirements according to the BR and started with Reg. (EU) No 805/2011. • As far as practicable ensure similarities for training organisation requirements with regard to aviation activities. • Ensure proportionality of the management system requirements per type of training organisation. • Harmonise the transposition of ICAO Annex 1 and draft Annex 19 in the EU regulatory framework. • Harmonise the requirements to obtain and maintain a training organisation certificate providing air traffic controller training (one of the conditions to provide sufficient grounds for air traffic controllers' mobility).	• Establish harmonised and complete requirements for training organisations to obtain and maintain their certificate. • Ensure harmonisation with requirements for air navigation service providers and allow proportionality and flexibility (e.g. requirements for organisations providing initial training versus requirements for unit and continuation training).	**Option 1: Provide only AMC and GM related to Reg. (EU) No 805/2011** The Agency is only able to develop AMC/GM for the existing requirements and cannot add additional ones in the AMC or GM. Gaps therefore remain within the Basic Regulation. **Option 2: Comprehensive set of AMC and GM** Following the completion of the requirements of Chapter IV of Reg. (EU) No 805/2011 the Agency is able to develop AMC and GM to the necessary extent.
11. MEDICAL REQUIREMENTS		
• The current rules do not cover all the areas addressed by the Basic Regulation and do not provide for legal clarity and certainty as regards the applicable requirements. • A non-harmonised implementation of rules does not ensure a	• Maintain a high uniform level of safety by ensuring that air traffic controllers are medically fit for their duties.	**Option 1:** Transpose the current system of medical certification of air traffic controllers into a common system to be included in the European legislative framework.

Issues[*]	**Objectives**	**Options** (other than 'do nothing')
level playing field and has negative social consequences if an air traffic controller is considered medically unfit in a country to exercise the privileges of his/her licence, whereas he/she could continue to work in another Member State following a different assessment. • Synergies by providing the same framework could exist for persons and organisations assessing both air traffic controllers and pilots. • The update of the rules need to consider scientific and technical progress in medicine commonly shared by the aviation sector.	• Ensure that all areas addressed by the Basic Regulation are covered by appropriate rules. • Create a level playing field. • Facilitate the free movement of air traffic controllers. • Ensure a smooth transition from the current rules to the future European standard.	**Option 2:** Create a new set of rules for medical certification of air traffic controllers taking into account the fact that they are not working in the aircraft environment.

[*] The numbering in this table refers to the RIA chapters.

4 CHANGE OF THE SURVEILLANCE RATING SYSTEM

4.1 What is the issue and the current regulatory framework?

Developments in surveillance technology

For an extended period of time radar technology was the only means of surveillance used to provide air traffic controllers with the required Air Situation Picture (ASP).

Initially, non-cooperative Primary Surveillance Radar (PSR) was the only means of surveillance to provide air traffic controllers with an independent two-dimensional position of an aircraft.

Later on, Secondary Surveillance Radar (SSR) added an additional layer of information (pressure altitude through Mode C code and identity through Mode A code) to the ASP but relied on the presence of a cooperative SSR transponder on-board the aircraft.

With the introduction of Mode S SSR further data was made available to air traffic controllers, partly by means of 'Downlinked Aircraft Parameters (DAPs)' providing information not only on the three-dimensional position of the target but also data on the operational status of the aircraft and intent information. All these SSR technologies, however, relied on a ground-based infrastructure (radar stations) initiating the request for the transmission of data from the aircraft.

Nowadays the vast majority of controlled aircraft are equipped with SSR transponder and ATC surveillance is based on SSR/Mode S with some PSR (as necessary) to cope with possible failure of SSR transponders.

With the introduction of Automatic Dependent Surveillance (ADS) this approach will change. With ADS it is the aircraft's avionics that automatically transmits its information including positional information, identity and DAPs.

There are two applications of ADS: ADS-Contract (ADS-C) and ADS-Broadcast (ADS-B). While for ADS-C the aircraft transmits the requested information based on conditions specified in the contract, for ADS-B the information is periodically transmitted by the aircraft's system.

In the context of this document only ADS-B is relevant, as ADS-C implementation is mainly dedicated to oceanic airspace.

With ADS-B the ground infrastructure now only has to pick up this information and provide it to the surveillance data processing systems. To date only ADS-B avionics in non-radar airspace (i.e. as a sole means of surveillance) has been certified but doesn't play a role in the European airspace. ADS-B avionics for radar airspace has not yet been certified, the activity is currently pursued. Currently ADS-B is only used for test or in a pre-operational mode in Europe either in radar or in non-radar airspaces (the latter mainly in low-level areas below radar coverage).

Another surveillance technology that is currently emerging is multilateration. The two-dimensional position of the aircraft is calculated based on the time difference of arrival of the same message at a number of receiver systems. The signals used for processing in a multilateration system can be replies triggered by the interrogation of a classical or Mode S SSR, the signals transmitted by the 'ADS-B Out' function of the transponder (both methods are named 'passive multilateration'), or replies triggered by an interrogation from the multilateration system itself ('active multilateration'). Additional information on the altitude of the target as well as DAPs can be retrieved by decoding the corresponding messages. In the context of air surveillance these systems are called WAM which stands for Wide Area Multilateration. WAM is currently used operationally in few places in Europe in addition to classical/Mode S SSR or as the sole means of surveillance.

MSPSR (Multi Static Primary Surveillance Radar) is a technology that is only at the beginning of its development. It works on the same principle as multilateration does but on the basis of transmitted and reflected pulses instead of interrogations and replies. Since it is non-cooperative it does not require the carriage of on-board equipment.

The 15.04.01 SESAR (Single European Sky — ATM Research) project deals with the projection of the surveillance environment into a future scenario (2025–2031). While the aim is to generate savings by rationalisation of the surveillance infrastructure, the evaluation of the application cases provides useful data on what future surveillance infrastructure could look like. Without going too much into detail (which would go beyond the purpose of this RIA), the following results can be reported:

Application Case 1 (High-density traffic area — Frankfurt TMA): Integrated ADS-B/WAM systems could be used to replace radar systems. MSPSR together with WAM systems would be foreseen for non-cooperative surveillance. The most beneficial long-term scenario would be based on a full MSPSR implementation together with a full ADS-B/WAM infrastructure. The report, however, stresses that an extension of the study area beyond TMAs would result most probably in a different solution for the most suited infrastructure. The full report is available in **[1]**.

Application Case 2 (Geneva TMA) concludes that for their environment the use of five SSRs (Secondary Surveillance Radars) together with multilateration as a gap filler would be the most suited solution. This would be complemented by MSPSR for non-cooperative surveillance. The report points to the fact that currently aircraft equipage for ADS-B is not considered sufficient to implement ADS-B as surveillance technology. Once this shortcoming is resolved, a new study with the inclusion of ADS-B would be required. The full report can be found here **[2]**.

Application Case 3 (Brno CTA/Karlovy Vary TMA) has the same result as Case 1: a combination of WAM and ADS-B complemented by MSPSR is considered the optimum long-term surveillance infrastructure. For the full report see **[3]**.

It has to be noted that the studies mentioned above focus on the sensor part of the surveillance chain. Processing of the sensor data in a surveillance data processing system is common to all application cases (see next paragraph).

More generally a combination of cooperative independent surveillance (WAM and/or Mode S SSR) and cooperative dependent surveillance (ADS-B) is the most likely baseline solution for approach and control area in the future; it will be supplemented by a layer of non-cooperative surveillance to cope, where necessary, with possible failure of transponders. This layer will be provided initially by PSR and later on by MSPSR when this technology matures.

It is to be noted that these three non-cooperative technologies (Mode S SSR, WAM and ADS-B) are equally able to provide the same information to air traffic controllers, i.e. the basic positional information and identity of the aircraft but also the additional information (statuses and intents) provided through DAPs.

It should also be noted that in the future classical SSR will no longer be an acceptable surveillance technology as it does not comply with the requirements for aircraft identification for the single European sky as foreseen in Commission Implementing Regulation (EU) No 1206/2011 laying down requirements on aircraft identification for surveillance for the single European sky[11].

In a modern Air Traffic Management (ATM) environment for approach and area control the systems mentioned above provide individual target reports as input to a surveillance data processing system which produces a multi-sensor track by amalgamating the information received from the various sources. It is this multi-sensor track (also called 'system track') that is made available to the air traffic controller on the Controller Working Position (CWP) as an ASP. In such an environment it is not really of importance which technology contributed to each of the system tracks. This depends on the sensor configuration and the part of the airspace in which the aircraft operates. What determines the operational environment for the

[11] OJ L 305, 23.11.2011, p. 23.

air traffic controller to work in is the performance and accuracy of the surveillance data processing system and the quality of the ASP.

The input sensor configuration used to generate the Air Situation Picture is defined on a local basis depending on operational requirements. With the use of shared surveillance data networks a flexible mechanism exists to tailor the input sensor configuration and at the same time to provide room for smooth and transparent reconfiguration should a sensor become unavailable. Mechanisms are in place that allow to automatically replace data from one sensor with data from a secondary sensor in order to fill the gap in coverage. This is either handled by the tracker system automatically or can be manually controlled by the system monitoring section of the Air Traffic Control centre. It is the decision of the operational watch supervisor — based on local operating procedures — to determine the air traffic controller operational procedures depending on the current system configuration. The impact on the air traffic controller is not so much depending on the technologies used but on the availability of sensors and the related surveillance coverage.

With respect to the subject of this RIA it is important to note that even in such an integrated environment it is of importance for the air traffic controller to know the technological features and functions to be able to judge the impact in case such a sensor becomes inoperable. The unavailability of certain data may have a direct impact on the way the air traffic controller will work. The different characteristics of the sensors actually used (coverage, update rate, data availability, redundancy, etc.) may have an impact on the operational procedures to be applied.

Furthermore, in the future it can be expected that the various technologies are applied in a much more integrated way in order to validate the individual target reports against each other. For instance one project undertaken by SESAR (Single European Sky — ATM Research) deals with the validation of ADS-B derived information by data being produced by a multilateration system.

To summarise, it can be said that especially in a fully integrated surveillance environment the surveillance technology used at the source of data is of less importance than the result of the data processing in a surveillance data processing system. It is the system track (multi-sensor track) displayed as Air Situation Picture that provides the information on which the air traffic controller bases his/her operational actions. However, knowledge about the specificities and limitations of the individual technologies is still required to understand global system functioning in order to adequately react in cases of abnormal system functioning (for instance in case of failure of ground or airborne system component).

The need for changes to the system of ratings and rating endorsements

According to Regulation (EU) No 805/2011[12] both APS and ACS ratings shall be accompanied by at least either a Radar (RAD) or an Automatic Dependent Surveillance (ADS) rating endorsement (OCN rating endorsement is not discussed in this context). In EUROCONTROL's 'Specification for the ATCO Common Core Content Initial Training' the training requirements are however only defined for one of the RAD rating endorsements.

Based on the available information on the use of ADS rating endorsement in Europe it seems that ADS is used at the moment in addition to, not instead of, the RAD rating endorsement and that the licence holders of an ADS rating endorsement have received radar training. Based on this it didn't seem feasible to continue with the current rating endorsement structure where RAD and ADS are individual endorsements that can be assigned independently.

The use of multilateration as a means of surveillance has generated a need for an additional rating endorsement; however, the appropriateness of creating a national rating endorsement

[12] OJ L 206, 11.8.2011, p. 21.

for this purpose could be questioned based on the criteria established in Article 7(4) of Directive 2006/23/EC of the European Parliament and of the Council of 5 April 2006 on a Community air traffic controller licence[13]. Moreover, the possibility to establish national rating endorsements has been suspended by Article 31 of Regulation (EU) No 805/2011, pending the establishment of a harmonised approach towards the necessary rating endorsements.

Another reason for change was the possible difficulties in maintaining rating endorsements valid, e.g. in an environment where multiple surveillance technologies are used.

Furthermore, as described above an even more integrated approach is pursued when it comes to the use of various surveillance technologies. In today's environment Surveillance Data Processing systems use inputs from sources of various technologies. From this data a system track is produced amalgamating all available information. This system track will be displayed at the CWP. This, together with the flexibility of the surveillance infrastructure (surveillance networks, automatic reconfiguration) makes it difficult to tell which technologies have actually contributed to the system track. This requires air traffic controllers to understand and work with the benefits and limitations of each surveillance technology in an integrated way. The issue therefore is to consider if training on technological specificities is then integrated into the rating training rather than keeping them in separate rating endorsements.

4.2 Who is affected?

Air traffic controllers

Maintaining the current situation will have no direct and no immediate impact on air traffic controllers. In view of the upcoming surveillance technologies (such as multilateration) the training will however be incomplete and measures would have to be taken in the future to prepare air traffic controllers for the integration of these new technologies into the operational environment.

As listed in **[4]**, page 67, 29 States (27 EU Member States plus Switzerland and Norway) reported having 24 733 licences under the oversight of their NSAs. No data is available with regard to the distribution amongst the various rating types.

Figures available in **[5]**, page 18, indicate that for the 37 European air navigation service providers that provided data to this report, 57 % of the air traffic controllers worked in an ACC position, whereas 43 % worked in APPs and on TWRs.

If we apply the same ratio to the figures reported by the 29 States, it would mean that there are about 14 100 ACC air traffic controllers and about 10 600 air traffic controllers working in APP/TWR positions.

From **[4]** we can also conclude that during 2010 a total of 71 air traffic controllers holding a licence in one country have requested their licence to be transferred to another State.

Training organisations

If the current situation is maintained there will be no direct and no immediate impact on training organisations.

However, no training requirements have been formulated yet for the use of multilateration as a new surveillance technology, and the requirements related to ADS are very basic because at the time they were defined ADS was still considered a future technology. Also the fact that various surveillance technologies are used in an integrated way during the surveillance data processing is not yet reflected in the training requirements. Therefore, training requirements need to be updated in any case.

[13] OJ L 114, 27.4.2006, p. 22.

In **[4]**, Annex 4 lists 110 certified training providers, of which only a subset provides initial training.

Air navigation service providers

As the current situation is tailored to the needs of air navigation service providers, no impact is to be expected if no regulatory action is taken.

However, measures have to be foreseen for the potential use of multilateration in the processing of surveillance data, if such technology is introduced in the unit.

[4] Annex 3 lists 283 air navigation service providers, of which 85 provide ATS (Air Traffic Services) and are therefore subject to the changes in the rating structure.

Competent authorities

1. In the current situation, NSAs are individually approving training courses for ADS rating endorsement. The number of approved courses is not known. In theory, where ADS is a technology used by air navigation service providers, maybe in conjunction with radar, the air traffic controllers would also need ADS rating endorsement in addition to RAD endorsement. As a consequence of the approval process, training requirements for ADS are not harmonised.
2. Multilateration is a new technology. Only CAA UK has developed a national rating endorsement according to Article 7(4) of Directive 2006/23/EC of the European Parliament and of the Council of 5 April 2006 on a Community air traffic controller licence, and no course has been approved. There is no possibility anymore for Member States to develop new national rating endorsements under Regulation (EU) No 805/2011. As a consequence, working with new surveillance technology introduced by air navigation service providers may not be licensed correctly and appropriately to the intention of the licensing scheme which foresees a different rating endorsement for every surveillance technology used.

EASA

EASA, being the European aviation regulator, will need to develop provisions for rating endorsement on multilateration to continue the philosophy set up by the current scheme.

As currently only the training requirements for RAD rating endorsement are harmonised, which is a historical decision of the air navigation service providers and competent authorities predating the extension of the EASA competence to ATM, even the current situation will require adaptation of the training requirements to the licensing structure with several options for the mandatory surveillance rating endorsements for ACS and APS ratings.

4.3 What are the safety risks?

This rulemaking activity creates new rules for air traffic controller licensing at European level and is intended to maintain the current high level of safety.

In the current surveillance environment there are no immediate major risks as the different technologies are put into operation in a slow, gradual process.

However, in the future the new surveillance technologies (ADS and multilateration) will be used more widely and in a fully integrated way. With the current split of air traffic controller ratings and rating endorsements and the possibility for various service providers to apply varying levels of training, there is a risk that air traffic controller competencies will be at differing levels depending on their place of training. Furthermore, there is no multilateration (MLAT) rating endorsement foreseen in the current structure. Therefore, it has to be assumed that the training requirements will be covered under the RAD rating endorsement. In this case it has to be ensured that the unit endorsement training has a technical component as well to deal with multilateration. Since this is defined at local level and tailored to the local

requirements the scope of the training cannot be ensured, a fact which may raise safety concerns in cases where a licensed air traffic controller changes his/her place of employment.

If an air traffic controller moves from a less diverse to a highly sophisticated environment he/she may not be properly prepared for the more complex system environment although he/she is holder of the appropriate rating and rating endorsements. This poses a safety risk in particular when system functions fail because the air traffic controller may not be in a position to properly evaluate the full consequences.

On the other hand, if an air traffic controller transfers from a fully implemented system (for instance, using active MLAT interrogating aircraft to the full extent) to a less sophisticated environment (where for instance no Mode S data or DAPs are available), non-availability of certain data may influence the air traffic controller's way of working which would raise safety concerns as well.

Thus, all depends on the level of training dispensed at a unit (during the training for a unit endorsement, or during the career of an air traffic controller as continuation training). Both are locally determined and approved by the NSA either as part of a unit training plan or as part of the competence scheme. At present, each ANSP develops a unit training plan for each unit endorsement it operates, as well as a competence scheme. Minimum requirements are prescribed in Regulation (EU) No 805/2011, but are much less detailed than for initial training due to the variety of operational units.

When an air traffic controller transfers from one unit to another, a unit training plan for that individual has to be developed, approved and successfully followed to qualify for a new unit endorsement. Operational and commercial necessities may lead to a unit training plan that can easily underestimate the required knowledge of complex technical systems that are part of the background knowledge of an air traffic controller. Prior operational experience will compensate for some of it, but not necessarily all, particularly during degraded modes of operation.

Therefore, this level of diversity in training across Europe may result in safety concerns when moving from one environment to another.

As discussed in 2.1 above, certain safety concerns have been raised by the fact that currently theoretical instructors do not require a formal approval by an approved training organisation.

4.4 Objectives

The overall objectives of the Agency are defined in Article 2 of Regulation (EC) No 216/2008 (the Basic Regulation). This proposal will contribute to the overall objectives by addressing the issues outlined in Section 2.

The specific objective of this proposal is therefore to implement in a smooth way the European regulatory framework for air traffic controllers licensing and training while maintaining the high level of safety in parallel to technological developments.

With respect to the amendment of the air traffic controller licensing scheme, the specific objective is twofold:

a) maintain the current high level of safety in a changing technological environment, and

b) disconnect the licensing scheme from surveillance technologies in order to accommodate technological progress and limit the necessary adjustments thereto.

4.5 Identification of options

Having in mind the current developments in the surveillance technologies as described in Section 2, the ATM.003 Rulemaking Group has considered the possibilities of having separate rating endorsements for different means of surveillance, combining the different means of surveillance into one rating endorsement (ASP), or combining them in the APS and ACS ratings. But as there aren't any substantial differences in the displays for the different surveillance equipment or in their use especially in an integrated environment, it didn't seem

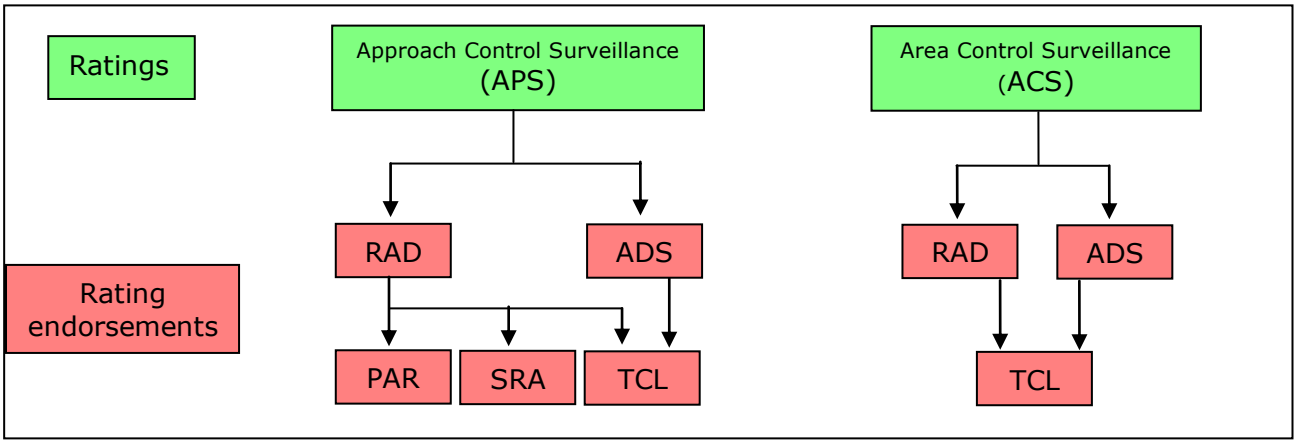
feasible to have separate rating endorsements and separate training requirements for each of the different surveillance equipment. A combined rating endorsement would not have brought any added value, so the solution was to include the different means of surveillance in the relevant ratings.

As a consequence, for option 2 below the training requirements will be changed so that the training for the different surveillance systems and their degraded modes is incorporated in the training for APS and ACS ratings. The change is foreseen to facilitate the administration of the licences and the maintenance of the validity of rating endorsements.

4.6 Possible options for the future rating system for surveillance-related air traffic controller ratings and endorsements

Below there is a description of the potential options for an amendment of the Area and Approach Control licences in view of the changing surveillance environment. At the current stage these options apply only to the APS and ACS rating.

The current rating structure (the subject of this RIA) is the following:



Additionally, OCN rating endorsement can be granted for ACS rating, but since it is not the subject of the current discussion it is not considered in the remainder of the document.

For APS rating either RAD or ADS rating endorsement is mandatory. PAR, SRA and TCL rating endorsements are optional and will be granted in addition to RAD or ADS (only TCL) rating endorsement.

For ACS rating either RAD, ADS or OCN rating endorsements are mandatory. TCL rating endorsement is optional and will be granted in addition to RAD or ADS rating endorsement.

Option 0 (baseline option): Do nothing

With this option no regulatory action will be taken and the *status quo* will be retained from the regulatory perspective. This option, however, will lead to inconsistencies in the system of ratings and rating endorsements as multilateration technology will not be covered adequately. Any ANSP intending to implement new surveillance technologies will have to take measures to make its air traffic controllers fit to apply the new functionality. This would happen as part of a conversion training following a safety case for the implementation of multilateration, and would be NSA-approved as part of the safety case.

Option 0 is therefore only theoretical and used as baseline scenario against which the other options are evaluated.

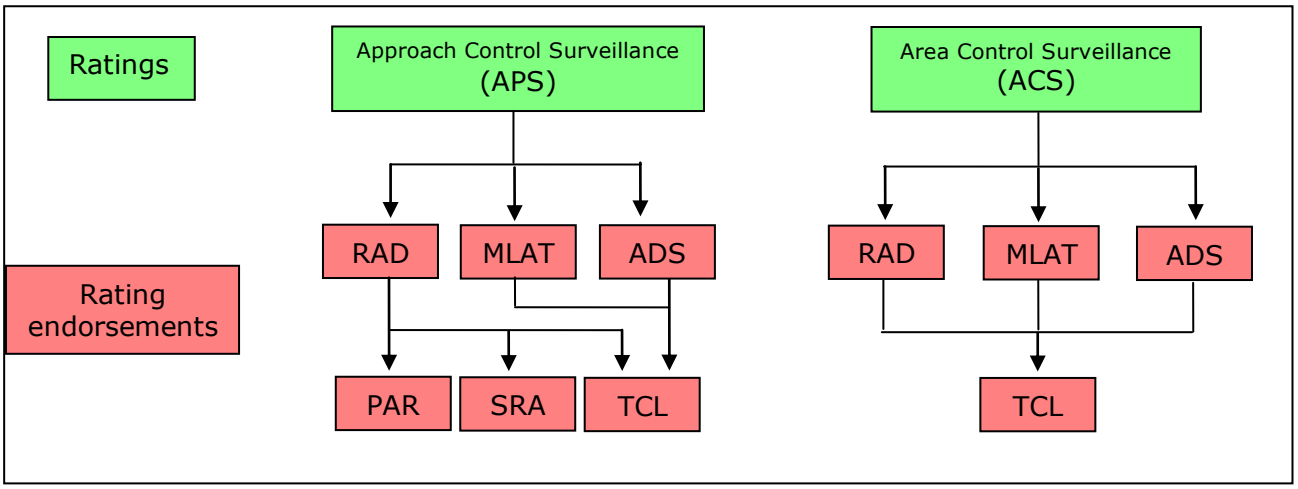
Option 1: Technology specific rating endorsements

This option is based on the current structure with APS and ACS rating for which RAD and/or ADS rating endorsement can be issued additionally.

For this option a new MLAT rating endorsement would have to be defined to be used in parallel with RAD and ADS rating endorsement. This step would have to be repeated for each new surveillance technology.

The respective rating endorsement would be granted with APS and ACS rating and instead of or in parallel with RAD or ADS rating endorsements.

After realisation of option 1, the rating structure would be as follows:



For APS rating either RAD, MLAT or ADS rating endorsement is mandatory. PAR, SRA and TCL rating endorsements are optional and will be granted in addition to RAD or ADS (only TCL) rating endorsement.

For ACS rating either RAD, MLAT or ADS rating endorsement is mandatory. TCL rating endorsement is optional and will be granted in addition to RAD, MLAT or ADS rating endorsement.

Option 2: Integrated surveillance ratings

With this option separate surveillance-related rating endorsements will cease to exist. Instead they will be fully integrated into APS and ACS ratings respectively.

With this option all technology specific aspects of the surveillance infrastructure will become an integral part of the rating training. Since this training will cover all technological aspects of the surveillance technologies used today, no additional technology specific rating endorsements will be required.

All air traffic controllers having received such a rating will immediately be competent to provide air traffic control services independent of the technologies used in the surveillance sensors. This will allow making use of all features available in the Air Situation Picture independent of the system configuration actually used in the sensors. Furthermore, it allows air traffic controllers to properly react to system failures that may render the use of a specific surveillance technology impossible. Due to the full training coverage the air traffic controller will be able to fully understand the impact caused by the loss of a specific sensor. This is especially important considering the full integration of the surveillance environment into one Air Situation Picture presenting the traffic situation on the Controller Working Position.

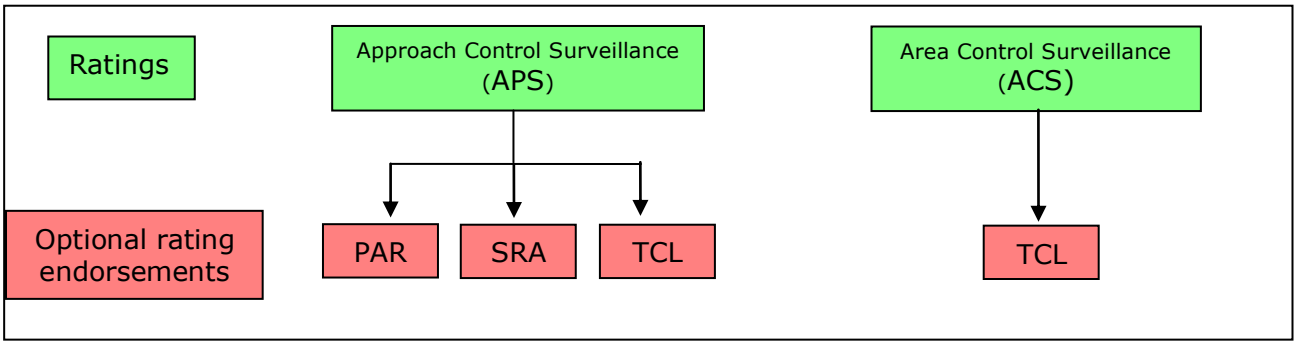
What would still remain are the rating endorsements which are rather related to procedures than technologies: PAR, SRA and TCL for APS rating, and TCL rating endorsement for ACS rating.

For the realisation of this option two scenarios have been evaluated.

Scenario number 1 would require service providers to requalify already licensed air traffic controllers in order to acquire the new surveillance rating. Such a scenario would impose significant costs to all service providers without achieving a noticeable benefit since licensed air traffic controllers currently have all competencies required for their current job. Only when moving to new tasks already licensed air traffic controllers will have to be trained accordingly as part of the conversion training. By dropping this scenario safety will not be impacted either since licensed air traffic controllers will maintain currently and in the future the level of competency required for their current job. Therefore, this scenario will not be further analysed.

The scenario which will be eventually chosen for the realisation of option 1 will allow licensed air traffic controllers to continue working with their current ratings and rating endorsements as long as the technological environment doesn't change. Only in cases where new surveillance technologies are integrated into the operational environment, air traffic controllers will have to be trained at least according to the requirements that will be defined for the new MLAT rating endorsement. All further statements related to option 2 will refer to this scenario for realisation.

In a graphical representation the future rating structure would be as follows:



4.7 Analysis of impacts

Safety impact

Option 0

As the current environment is considered safe, no immediate safety impact is to be expected. However, in an evolving environment where new technologies will be put into operation the existing situation will no longer be suited to respond to new challenges. Something will have to be done, and in the absence of European solutions national implementations will take place. Since the operational environment will differ from one ANSP to another, it can be expected that also the focus on training requirements will be different. air traffic controllers will be trained according to local needs which will result in a wide range of air traffic controller competencies, even differing in adjacent airspaces. It has to be expected that this may have a negative impact on safety. However, air traffic controllers will still be fully competent to provide the required services within their area of responsibility. The impact on safety is considered minor (score: –1).

Option 1

For option 1 a slight increase in safety can be expected as each of the rating endorsements together with the relevant training requirements will have to be approved by the NSAs. In all cases the ratings and rating endorsements are tailored to the operational situation in which the air traffic controller will deliver services. However, any change in the environment — maybe also in adjacent airspace — will require action and may, at least for a transitional period,

create a hazard of improper reaction to unforeseen occurrences. However, the likelihood of such a situation happening can be mitigated by proper planning of the introduction of new technologies or procedures. This option is expected to have a low positive impact on safety (score: +1).

Option 2

Option 2, however, has the potential to deliver additional safety benefits by harmonising the level of competence across the whole air traffic controller community. With the integration of the technology-dependent training requirements into the common rating training, it is ensured that all air traffic controllers possessing the new rating will have received training at the same level for all technologies. Since there will no longer be a difference in the technological competence of air traffic controllers working in adjacent airspaces, harmonised operational procedures can limit the risk of incidents due to insufficient knowledge of technological specificities. Aircrews can rely on the technological competence of air traffic controllers throughout the whole EU airspace, and on the fact that they can receive the same level of service during the whole flight.

With option 2 it can also be ensured that harmonised examination and validation criteria lead to an equal level of competence of all air traffic controllers across the airspace in the Member States. This level of harmonisation can ensure the same level of safety everywhere.

Option 2 additionally facilitates the uniform certification of training institutions issuing rating training. Since every initial training has to fulfil the same training requirements, the level of competency of the training centres can be measured against these harmonised training objectives, making sure that the same level of training is provided everywhere.

Option 2 is expected to have a medium positive impact on safety (score: +3).

Environmental impact

No environmental impact is expected by the amendment of the air traffic controller rating structure, irrespective of the option chosen. Therefore, the score for all options is: 0.

Social impact

Option 0

Option 0 will have no impact on the existing social environment and conditions.

It has to be considered, however, that technological evolution and development will continue and that new surveillance technologies will be put into operation for which no rating or rating endorsement has been defined yet. Such a development is not covered by option 0, which makes it only a theoretical possibility.

In the future not only the working environment for the air traffic controllers will very much depend on local configuration but in the absence of general rating requirements also training and certification will be determined at local level. Refresher and conversion training for already licensed air traffic controllers will be tailored to the local environment suiting them perfectly for their working positions — and for their working positions only. This means that the mutual recognition of ratings and rating endorsements will be difficult due to the differing standards in training. Mobility for both air traffic controllers and air navigation service providers will be severely influenced.

Therefore, the impact of option 0 is scored at –3.

Option 1

With the realisation of option 1, air traffic controllers not holding a multilateration rating endorsement will be able to work in units where multilateration is used only after receiving the

required training and the MLAT rating endorsement. Also the said air traffic controllers may not be able to work in units where systems using a mixed surveillance environment are operated.

For air traffic controllers not holding the full suite of rating endorsements mobility may be limited because they cannot be transferred to units where surveillance technologies are used for which they do not hold a rating endorsement.

Air traffic controllers holding the full suite of rating endorsements can in principle work in any environment where surveillance-related ATC services are provided. However, since the rating endorsements are not harmonised across the air traffic controller community there still is a possibility that the level of competence differs since the rating endorsement training has been tailored to the specific situation of that unit which is issuing the rating endorsement.

The existence of individual, nationally approved rating endorsements may create problems in the mutual recognition of the endorsements across Europe. This may have a negative impact on flexibility for both air traffic controllers and air navigation service providers — however, only compared to option 2.

With respect to option 1, the existence of all required rating endorsements (including MLAT) will eventually improve slightly the current situation. Therefore, this option is scored +1.

Option 2

All air traffic controllers holding a rating following option 2 will be fully qualified to work with all currently existing surveillance technologies. This will allow full mobility for both air traffic controllers and air navigation service providers. Especially in an integrated environment, where multiple surveillance technologies are used to generate the Air Situation Picture, the air traffic controller is fully aware of the technological specificities as well as of the impact in case of failure of any of these technologies.

air navigation service providers can rely on the fact that all air traffic controllers are trained to the same level of competence since the training will be an integral part of the rating and will be delivered to the same level of requirements throughout the whole airspace of the Member States. In this case air navigation service providers only need to familiarise air traffic controllers with the local operational environment and the system configuration without having to invest on technological details. Such a situation will support the mutual recognition of the air traffic controller ratings to the full extent.

Because of the positive effect on the air traffic controllers' working environment the score for this option is +3.

Economic impact

Economic factors

The economic factors determining the costs for the update of the air traffic controller licensing system can be listed as follows:

— creation of additional training material,

— additional training effort for future air traffic controllers,

— additional training effort for licensed air traffic controllers.

Creation of additional training material

EUROCONTROL's ACCCTTF (ATCO Common Core Content Training Task Force) in its workshop from 17 to 19 January 2012 has evaluated all requirements of the existing basic and rating training for ACS and APS ratings. The majority of the requirements that had to be updated belong to the basic training where the theoretical foundation applied during the rating training is laid. The group considered it important to explain the working principles and usage of the different surveillance technologies, but formulated the requirements for the (practical) rating

training in such a way that they are technology independent and can be adapted by the individual training organisations, e.g. to the capabilities of the ATC simulators used. During the rating training (which ends with the issue of a student controller's licence) focus is brought on the basic operational procedures which do not differ greatly, depending on the surveillance technology used. Therefore, the impact of the various technologies on the practical rating training is limited.

During the workshop the following modifications to the training requirements were integrated:

— definition of new training requirements for an 'Introduction to Surveillance';

— update of the ADS-B specific training; at the time this part was created ADS was still considered a future technology, therefore an update was required to cover the technology specific aspects in detail;

— definition of new training requirements for multilateration;

— definition of new training requirements for the subject of 'Surveillance Data Processing' (includes Surveillance Data Networking and Surveillance Data Processing).

As a next step training courses will have to be designed and training material will have to be developed. ACCCTTF's experts estimate an effort of 15 to 18 days for a conventional classroom set-up necessary for this task.

Additional training effort for future air traffic controllers

Future air traffic controllers will additionally have to pass the newly developed training modules. ACCCTTF members consider the following module durations appropriate:

— Introduction to Surveillance: 30 minutes;

— ADS-B Principles and Use: 2–3 hours;

— Multilateration: 2 hours;

— Surveillance Data Processing: 3 hours.

The total additional duration of the theoretical training is estimated to be 7,5 to 8,5 hours.

Additional training effort for licensed air traffic controllers

Additional training effort for licensed air traffic controllers will only occur in cases where these air traffic controllers will move to an operational environment where new technologies are applied, or if their current operational environment changes. The duration of the additional training depends in the latter case on the rating endorsements already held by the air traffic controllers and on the identified training needs based on the safety case for the technological change. In the former case, this training effort will need individual assessment and should only slightly exceed the effort required for the future air traffic controllers.

Option 0

In case of implementation of option 0, air navigation service providers will evolve their working environment strictly following their own requirements. Therefore, the economic impact will be 0 (score: 0).

Option 1

Compared to baseline option an additional training module will have to be created for multilateration. This will require effort from the training institutions issuing this particular rating endorsement. However, the effort to produce such training modules can be estimated to be limited since the material for the training of engineers which is supposed to maintain the new technology should be already available. The basic parts of such training could be taken over for the training of air traffic controllers.
Regarding air navigation service providers and air traffic controllers additional efforts will be necessary for those who will have to use multilateration in their future operational

environment. This effort will have to be invested in air traffic controllers currently holding RAD and ADS rating endorsements (conversion training) and in future air traffic controllers. However, this is a one-time investment and for air traffic controllers holding already a rating this will have to be done only for those air traffic controllers actually working with multilateration in the future. Since this would be part of the local conversion training and has to be done anyway in case of the introduction of a new technology, there is no additional effort as compared to option 0 (score: 0).

Option 2

If option 2 is implemented ACS and APS ratings will have to be extended by modules covering surveillance technologies currently available. RAD rating endorsement is already part of the ACS/APS training. The already existing module on ADS is very basic and will have to be extended and integrated. Furthermore, a new training module on multilateration will have to be developed. In order to properly reflect the full integration of the various surveillance technologies in the generation of the Air Situation Picture (ASP), a new training module on Surveillance Data Processing will be developed.

Once option 2 is implemented air navigation service providers will have to send future air traffic controllers to the extended rating training. The duration of the additional training required for the full set of courses is estimated to 7,5–8,5 hours. This extended duration will be shorter in cases where air traffic controllers have acquired ADS and/or multilateration rating endorsement(s) anyway, since these technologies are used by the future employer. However, this additional training investment is a one-time effort. Once air traffic controllers are fully qualified they will be able to work on any existing working position within the EASA Member States. Additional conversion training will not be required. Furthermore, with the fully integrated rating air navigation service providers can be sure that each air traffic controller has the same level of competence so that refresher or familiarisation training will not be required. This means that the initial investment will be offset by substantial savings in the long run.

For air traffic controllers the implementation of option 2 could mean additional initial effort during rating training since the full technical training will have to be passed. The additional effort is estimated to 4 days (2 for ADS and 2 for multilateration) in cases where in the baseline scenario only the RAD rating endorsement would have been acquired. However, for the air traffic controller this will be a one-time effort because after getting the new fully integrated rating he/she can work with any existing surveillance technology without requiring additional conversion training. Considering that the level of training and competency will be the same across the EASA Member States, additional refresher or conversion training will not be required if an air traffic controller wants to change from one ANSP to another. Only the training on local operating procedures will be required, but this is true for any of the options.

Since the acquisition of the new rating is not mandated for already licensed air traffic controllers, the economic impact is neutral (score: 0).

Proportionality issues

In option 0, air navigation service providers will evolve their environment strictly according to their own requirements. Therefore, there is no additional burden placed on them (score: 0).

Options 1 and 2 will impose a burden on large as well as on small service providers.

Smaller service providers cannot generate economy of scale effects in the organisation of the required training. It can be assumed that training will be outsourced, generating additional costs. The costs per air traffic controller for the required activities will be higher.

Although larger air navigation service providers will have to train a larger number of air traffic controllers it will be easier for them to cope with such a situation because of the extensive staff complement. Many large service providers will be in a position to organise the training themselves, thereby limiting the costs.

All in all it can be concluded that for both options the effect on smaller air navigation service providers will be slightly more severe, so that proportionality issues are scored at –1.

Impact on regulatory coordination and harmonisation

ICAO does not apply the principle of ratings and associated rating endorsements but defines integrated ratings only. Therefore, especially option 2 would be a step towards harmonisation of the European licensing scheme with the ICAO provisions.

In the absence of MLAT rating endorsement, national authorities were forced to arrange for training requirements at a national or local level in cases where the new technology was to be applied (examples are the MLAT rating endorsement in the UK (although MLAT is not yet used) or the need for training for the air traffic controllers at Innsbruck airport where an MLAT system is already in operation due to the constraints generated by the complex geographical environment). With the implementation of option 1 and 2 harmonisation of the training requirements can be achieved. While with option 1 harmonisation will be limited to national level (rating endorsements will be approved by the NSAs), option 2 will provide for a fully harmonised training content.

Compared to option 0, option 1 will not change the situation with respect to harmonisation of the rating situation. The score is 0.

If option 2 is implemented significant benefits are to be expected in view of the harmonisation with the ICAO provisions as well as in view of the harmonisation of the air traffic controller rating situation within Europe. Even if the acquisition of the new rating is not mandatory, all air traffic controllers will hold the generic ratings in the long term. Considering this long-term view, the option is scored at +3.

4.8 Conclusion and preferred option

Comparison of options

Types of impacts	*Weight*	*Unweighted score*			*Weighted score*		
		Option 0	Option1	Option 2	Option 0	Option 1	Option 2
Safety	3	–1	1	3	–3	3	9
Environment	2	0	0	0	0	0	0
Social	1	–3	1	3	–3	1	3
Economic	1	0	0	0	0	0	0
Proportionality	1	0	–1	–1	0	–1	–1
Regulatory coordination and harmonisation	2	0	0	3	0	0	6
Total		**–4**	**1**	**8**	**–6**	**3**	**17**

In conclusion it is recommended to implement option 2. It is expected to increase the level of safety to the most extent as it will ensure that air traffic controllers are competent to work in any surveillance environment. Also the social implications will be favourable by increasing flexibility for air traffic controllers and air navigation service providers when it comes to choosing the working environment. Furthermore, the effect on regulatory coordination and harmonisation is considered positive.

Since there is no expected operational benefit by mandating the acquisition of the new rating for already licensed air traffic controllers, it is recommended that such a mandate will not be issued together with option 2.

5 OCEANIC CONTROL RATING ENDORSEMENT

5.1 What is the issue and the current regulatory framework?

Currently, under Regulation (EU) No 805/2011 only the area control surveillance rating (ACS) can be accompanied with the oceanic control rating endorsement (OCN). Under this Regulation there is no explicit possibility to attach the OCN rating endorsement to the area control procedural rating (ACP) even though oceanic control is being exercised in combination with procedural area control in several Member States. Traditionally OCN endorsement existed in the Member States as a national endorsement and has been elevated to the European level with the Directive 2006/23/EC, however the Directive only acknowledged its pairing with the ACS rating. In order to cater for the lacking rating and rating endorsement combination some of the affected Member States have used the possibility provided by the said Directive to develop national rating endorsements. The need for the possibility to attach the OCN as a rating endorsement to the ACP rating has already been recognised by the so called ATCO Licensing User Group, which operated under the framework of Eurocontrol, but no further steps have been taken at European level.

According to a questionnaire survey conducted by EASA, some States providing oceanic control are nationally using OCN rating endorsement with ACP rating. As this seems to be the prevailing system it has been deemed necessary to assess the introduction of this combination at European level.

Moreover, Regulation (EU) No 805/2011 only maintains the national rating endorsements established under Directive 2006/23/EC on a transitional basis, which as a standstill clause allows Member States to continue using the national rating endorsements they have established via their national legislation but they are not allowed to develop and introduce new national rating endorsements. The reason for such open-ended transition was to allow sufficient time for EASA to analyse the existing national rating endorsements and to propose the necessary changes in a transparent and objective manner with the aim to eliminate the unnecessary differences between Member States and thus to enhance the level of harmonisation.

5.2 Who is affected?

Air traffic controllers

Without enacting new provisions — and expressly enabling the pairing of the OCN rating endorsement with the ACP rating — air traffic controllers working in an Oceanic Control Area without surveillance equipment and having the OCN rating endorsement as national rating endorsement only will be continuously disfavoured when it comes to the recognition of their licence, ratings and rating endorsements within Europe, as national rating endorsements are not subject to mutual recognition.

Training organisations

Training requirements are not an issue, only the 'administrative' recognition of this training leading to this rating endorsement. Training organisations are therefore not impacted by the issue of the oceanic rating endorsement.

Air navigation service providers

No impact is forecasted for air navigation service providers.

Competent authorities

Only a limited number of competent authorities is affected due to the nature of the subject. These competent authorities, in the absence of new Union-wide provisions, have to maintain their national legislation and system to issue and maintain OCN rating endorsement as a

national rating endorsement to the ACP rating. In addition other Member States, which are not using this pairing under their national legislation, remain in the future excluded from benefiting from this option, as Regulation (EU) No 805/2011 does not foresee the establishment of new national rating endorsements.

5.3 What are the safety risks?

There is no identified safety risk.

5.4 Objectives

The objective of the proposal is to enhance the level of harmonisation of air traffic controller rating endorsements, and in particular with regard to the use of the OCN rating endorsement in a safe and cost-effective manner in the European legislative framework.

The objective of cost-efficiency is to have a smooth transition from OCN attached as national rating endorsement to the ACP rating to common European requirements with the aim to ensure the recognition of the air traffic controller licences at EU level and thus to facilitate the mobility of air traffic controllers.

5.5 Identification of options

Option 0 — Do nothing

The current system, meaning that the OCN rating endorsement can only accompany the Area Control Surveillance (ACS) rating excludes the use of this rating endorsement from the airspace, which is an Oceanic Control Area where no surveillance equipment is available. By maintaining the current rules as in Regulation (EU) No 805/2011 only those national rating endorsements established under Directive 2006/23/EC can be used on a transitional basis. Under this standstill clause Member States are not allowed to develop and introduce new national rating endorsements.

Furthermore, as national rating endorsements are not subject to recognition at EU level such option would have a negative effect on the recognition of licences and on the mobility of air traffic controllers who have currently this national rating endorsement.

Taking also into account the fact that the possibility of establishing national rating endorsements has been meant for exceptional cases which only arise due to the particular characteristics of the airspace, it is the Agency's understanding that the systematic use of the ACP–OCN pairing is not necessary qualifying these criteria and thus can be challenged for example in the course of the standardisations inspections.

Option 1 — Establish the possibility of ACP–OCN pairing recognised at EU level

This change necessitates an explicit provision in the Regulation which allows such pairing, which is then included in the European air traffic controller licence accordingly. Via the inclusion in the licence based on the requirements of the relevant European legislation holders of this rating endorsement will also benefit from the EU-wide recognition of their privileges.

Option 1 would affect the different stakeholders as follows:

Air traffic controllers

Air traffic controllers working in an Oceanic Control Area and having the ACP rating will now have the possibility to obtain the OCN rating endorsement and have it included in their licence, which will then be recognised by all other Member States. The licence of those air traffic controllers who have acquired the OCN endorsement as a national rating endorsement attached to the ACP rating is proposed to be grandfathered and replaced with a new licence according to the new common licence template which should then indicate the privilege given by the OCN rating endorsement.

Training organisations

As previously obtained privileges are grandfathered and no changes are proposed regarding the training requirements for this rating endorsement no impact is forecasted for the training organisations.

Air navigation service providers

As previously obtained privileges are grandfathered no impact is forecasted for the air navigation service providers.

Competent authorities

The proposed change, namely to expressly allow the pairing of the ACP rating with the OCN rating endorsement indicating that the holder of the licence is competent to provide air traffic control services to aircraft operating in an Oceanic Control Area, affects the competent authorities to a rather limited extent. It is understood that only a limited number of Member States is affected by this issue and only some of them used this pairing via a national rating endorsement until now. The proposed change implies administrative changes, which however could be undertaken by those competent authorities together with the administrative steps to replace old licences with new ones according to the new, common template. Therefore, the impact of this particular change to the competent authorities is considered neutral.

5.6 Analysis of impacts

Safety impact

No safety impacts were identified for any option.

Environmental impact

Not applicable.

Social impact

Option 0 would have a negative social impact, while *option 1* is considered positive in this regard as that solution contributes to the free movement of air traffic controllers.

Conclusion for social impacts:

	Option 0	*Option 1*
Social impacts	–	+

Economic impact

Option 0 has a potential negative economic impact on air navigation service providers and competent authorities as they will be obliged to find national solutions for the issue, which may then be diverse as well as costly to elaborate and maintain.

Option 1 has very limited economic impact as the existing privileges are proposed to be grandfathered and there is no further action expected from Air navigation service providers. Competent authorities have to take care about the change of the licences, which is necessary for other reasons anyway; therefore, no extra economic impact is originated by this change. Therefore, the impact of this option is considered neutral.

Conclusion for economic impacts:

	Option 0	*Option 1*
Economic impacts	–	0

Proportionality issues

Regarding proportionality this proposal is considered neutral. Although it specifically caters for the needs of certain Member States/regions, it does not affect adversely those Member States/regions which do not have any Oceanic Control Area.

Impact on regulatory coordination and harmonisation

Leaving the subject in the national competence of the Member States would necessitate another, more tailored provision to empower Member States to act in this domain and to set the boundaries of that potential action. Moreover, national rating endorsements created or maintained by individual Member States would not benefit from EU-wide recognition. Therefore, the score of *option 0* is negative, while that of *option 1* is positive.

Conclusion for regulatory coordination and harmonisation:

	Option 0	*Option 1*
Regulatory coordination and harmonisation impacts	–	+

5.7 Conclusion and preferred option

Comparison of options

	Option 0	*Option 1*
Social impacts	–	+
Economic impacts	–	0
Regulatory coordination and harmonisation impacts	–	+
Overall	**–**	**+**

Conclusion

Based on the analysis of impacts, option 1 is the preferred one. It will contribute to the enhanced harmonisation of the licensing requirements applicable to air traffic controllers as well as to the recognition of the acquired privileges based on the common rules. It will also eliminate certain administrative and legislative obligations previously carried by the Member States.

6 VALIDITY OF THE UNIT ENDORSEMENT

6.1 What is the issue and the current regulatory framework?

Article 12 of Regulation (EU) No 805/2011 defines 12 months as the validity of a unit endorsement. However, the frequency of assessments related to the competence of the air traffic controller may take place only once within a period of three years, as required by Part C of Annex II to the same Regulation. This twofold requirement resulted in a discrepancy meaning that checking competence so far is not a mandatory criterion for revalidation of the unit endorsement. This discrepancy has led to considerable differences in the implementation amongst Member States; as some of them were implementing these requirements 'word by word' and thus have established a three year period for the assessment, while a good number of Member States require competence of the air traffic controllers to be assessed on a yearly basis. Even the three-year period may be implemented differently between the Member States using that option, as some may do the assessment whenever they wish, while some others may only perform it within a defined timeframe linked to the laps of the three year period.

In addition, the lack of clarity between Article 12 and Part C of Annex II creates concerns on the frequency of assessments related to the competence of the air traffic controller. Due to the non-existing link between the validity period of the unit endorsement and the assessment of competence situations may arise, where the competence assessment would already be due when the unit endorsement is still valid. Maintaining two different databases and comparing their potentially different output leads to an excessive administrative burden and may even lead to mismatches between the two 'validities'. Some Member States have however already linked the revalidation of the unit endorsement to competence requirements in order also to reduce the administrative effort.

Therefore, it is concluded that decoupling the validity of the unit endorsement from the means to regularly check the competence of the air traffic controller is not considered appropriate for both maintaining the same level of safety in a continuous manner, as well as for ensuring a simple and proper administrative follow-up.

6.2 Who is affected?

In the case of discrepancy and lack of clarity regarding the validity of the unit endorsements and the competence assessments applicable to air traffic controllers, the affected stakeholders are: air traffic controllers, training organisations, Air navigation service providers and competent authorities.

6.3 What are the safety risks?

Despite the lack of evidence, several rulemaking group members consider that the three years upper limit proposed as the maximum validity period for a unit endorsement is too long and such a long period may pose more safety risks.

6.4 Objectives

The general objective is to prevent implementation problems and discrepancies and to ensure the regular competence assessment of air traffic controllers across Europe in line with the safety risk attached to their activity. The specific objective is to correlate the frequency of the assessments with the validity of the unit endorsements and thus to ensure that there is a clear link between the prolongation of the privileges and the ongoing capacity to meet those challenges. Further objectives are to enhance clarity, and to facilitate implementation and administration.

6.5 Identification of options

Option 0 — Do nothing

This option means maintaining the provisions of Regulation (EU) No 805/2011.

Option 0 would also maintain the shortcomings of the current system, being mainly the missing link between the revalidation of the unit endorsement and the regular assessment of competence.

Option 1 — Reduce the frequency of the assessment to the 12-month validity of the unit endorsement

One way of achieving correlation between the validity of the unit endorsement and the frequency of the assessment is to adapt the latter to the first obligation.

Option 1 would result in a mandatory 12-month validity time for all unit endorsements irrespective of their size and complexity and would require an assessment of the air traffic controllers' competence to be undertaken at the same interval. This option would impose a 'one size fits all' system to all air traffic control units in Europe and would leave no room for manoeuvre to establish a risk-based approach.

Option 2 — Establish a flexible system that can be adapted to the diversity of the air traffic control units

The experts of the rulemaking group considered the diversity of air traffic control units, their different needs and different activities, which lead to the conclusion that certain flexibility need to remain with the air navigation service provider when establishing the validity times applicable to particular unit endorsements. This flexibility is proposed to be implemented by attaching the validity of the unit endorsements to the unit competence scheme, which is also the tool to assess the competence of air traffic controllers. It is proposed that the validity of the unit endorsement is defined in the unit competence scheme and it should correlate to the frequency of the assessments. In no case, however, should the validity of a given unit endorsement exceed the 3-year period, which has been the time limit in Regulation (EU) No 805/2011 for the frequency of the assessments and is proposed to be maintained as a maximum period of validity. It should be noted as well that the flexibility granted to the air navigation service provider cannot be exercised at their full discretion but only with the agreement of the competent authority, as the unit competence schemes have to be approved by the competent authority.

Option 2 would affect the different stakeholders as follows:

Air traffic controllers

It is expected that following the entry into force of the new Regulation air traffic control units will reconsider the validity periods of their unit endorsements. Should there be a decision for a change, this change will certainly affect air traffic controllers as well, as the validity period of their unit endorsement may change. Further changes are to be expected when it comes to the frequency of the assessments. Since they should from now on correlate to the validity of the unit endorsement they may become more frequent for those air traffic controllers who were so far assessed only once every three years.

Linked to the revalidation of the unit endorsement is the obligation to undertake refresher training as part of the continuation training may become more frequent for air traffic controllers, depending on the decision on the validity period of the unit endorsement.

Training organisations

Training organisations will have to be prepared to eventually offer more frequent refresher trainings, depending on the decision on the validity period of the unit endorsement. This would certainly imply costs to be borne by the training organisation/air navigation service provider.

Air navigation service providers

Air navigation service providers will have now the possibility to adapt the validity of their unit endorsements and even establish different validity times for different unit endorsements depending on their complexity and other elements defined in the AMC material linked to this provision. Even if not changing the validity of the unit endorsements air navigation service providers have now to align the frequency of assessments with the validity. This may result in more frequent assessments to be undertaken and more frequent refresher trainings to be organised for the revalidation, which results in costs to be borne by the air navigation service providers. Hiring additional staff, mainly instructors and assessors, may also become necessary.

Competent authorities

Correlating the validity times and the frequency of assessment will result in simplifications from the administrative point of view; keeping and maintaining the records related to the privileges of the air traffic controllers should become easier for the competent authorities.

6.6 Analysis of impacts

Safety impact

The safety risk is increasing together with the length of the validity period of the unit endorsements. In addition, should the revalidation not be coupled with the assessment of ongoing competence, the risk increases even more.

Option 0 therefore is considered to bear a substantial safety risk and is not followed.

Option 1 would certainly reduce the safety risk by providing a more frequent assessment of air traffic controllers working in those air navigation service providers/units which do not perform an annual assessment.

Option 2 combines the mitigation of the safety risk by correlating the frequency of the assessments to the validity times and at the same time it offers the necessary flexibility to tailor the requirements to the individual units as well as to counterbalance with mitigation measure, as necessary.

AMC material has been established to require additional means to monitor and ensure the continuous competence of air traffic controllers in cases where the validity time of the unit endorsement would exceed 12 months. In addition, a safety assessment should be conducted if an ATC unit is proposing to increase the validity time of the unit endorsement. However, this has been kept as the maximum period as this period has been applicable to assessments according to Regulation (EU) No 805/2011.

Conclusion for safety impacts:

	Option 0	*Option 1*	*Option 2*
Safety impacts	–	+	+

Environmental impact

Not applicable.

Social impact

Competence assessments and validity periods have social impact related to job quality and work-related self-confidence of the air traffic controllers.

In the case of *option 0* air traffic controllers may have a long period between two assessments, which may lead to potential lack of confidence in the continuity of their skills.

Option 1 with the annual assessment would ensure that skills are maintained, but for certain units and for air traffic controllers working in those units it could be regarded as burdensome, depending on their tasks and the complexity of their activity.

Option 2, however, with the proposed flexibility should ensure that assessments are done at a relevant time, thus ensuring job quality and confidence for air traffic controllers regarding the continuity of the necessary skills.

Conclusion for social impacts:

	Option 0	*Option 1*	*Option 2*
Social impacts	–	+/–	+

Economic impact

The current situation will remain with *option 0*; therefore, there is no additional impact.

Option 1 would create additional costs for the air navigation service providers which do not perform an annual assessment. For these air navigation service providers more staff could be required (mainly instructors and assessors) in order to provide the necessary training and undertake the necessary assessments.

Option 2 is considered to be cost-efficient without undue cost, as flexibility does not oblige all units to change to the 12-month assessment frequency of option 1.

Conclusion for economic impacts:

	Option 0	*Option 1*	*Option 2*
Economic impacts	0	––	0/–

Proportionality issues

Regarding proportionality *option 1* is not favoured, as it would set uniform rules to be followed by everyone irrespective of the individual circumstances. *Option 0 and 2,* however, offer a different degree of flexibility and thus meet the requirement of proportionality.

Conclusion for proportionality issues:

	Option 0	*Option 1*	*Option 2*
Proportionality	+	––	+

Impact on regulatory coordination and harmonisation

While *option 0* does not imply any change compared to the current system, *options 1 and 2* are enhancing regulatory harmonisation. In this regard option 1 would be the ideal solution, as it ensures that each individual actor will apply identically the rules, while option 2 implies a flexible approach taking into account the needs and the safety risks of the individual units. It should also be considered that a too rigid approach, like in the case of option 1, could lead to implementation problems and result in a number of derogation requests jeopardising the original aim of the approach.

Conclusion for impacts on regulatory coordination and harmonisation:

	Option 0	*Option 1*	*Option 2*
Regulatory coordination and harmonisation impacts	0	+/–	+

6.7 Conclusion and preferred option

Comparison of options

	Option 0	*Option 1*	*Option 2*
Safety impacts	–	+	+
Social impacts	–	+ / –	+
Economic impacts	0	––	0 / –
Proportionality	+	––	+
Regulatory coordination and harmonisation impacts	0	+ / –	+
Overall	**–**	**–**	**+**

Conclusion

Based on the analysis of impacts, option 2 is the preferred one. It will provide clarity on the requirements to be applied and ensure that the frequency of the competence assessments are performed following objective and consistent criteria across the European Union, while maintaining flexibility for the stakeholders who need it.

7 ASSESSMENT OF LANGUAGE PROFICIENCY

Safety experts are constantly seeking to identify means of improving safety in order to reduce the already low accident rates. With mechanical failures featuring less prominently in aircraft accidents, more attention has been focused in recent years on human factors that contribute to accidents. Communication is one human element that is receiving renewed attention.[14]

In 2003, ICAO adopted requirements relating to language proficiency in international civil aviation, which are included in Annexes 1, 6, 10, 11, and the PANS-ATM. The standards and recommended practices relevant to air traffic controllers have been translated into EU-wide requirements by means of Directive 2006/23/EC and they continued to remain applicable by Regulation (EU) No 805/2011.

Over the past several years much activity has been undertaken worldwide to meet the ICAO language proficiency requirements, including initiatives to set up or acquire training and testing programmes. Language training and testing professions, both commercial and academic, have contributed to the accelerated development of programmes, learning materials and testing services in accordance with the ICAO language proficiency requirements.[15]

Even more emphasis is placed now on the correct and uniform implementation of the existing requirements, as well as on the rectification of existing gaps or shortcomings with the aim to further enhance safety.

7.1 What is the issue and the current regulatory framework?

Regarding the implementation of the language proficiency requirements great emphasis is placed on the assessment of language proficiency, which is in the hands of the so-called language assessment bodies. Although guidance exists at ICAO level on the criteria applicable to language assessment bodies[16], at European level no detailed expectations have been voiced out so far in relation to these organisations.

Another subject is to ensure the maintenance of language skills at the same quality at all proficiency levels. Currently there is no validity attached to the expert level (level 6) of the language proficiency; however, experience shows that language erosion affects all proficiency levels, although to a different level and intensity.

The correct and uniform assessment of language proficiency and the maintenance of the quality of the language skills are strictly interrelated, therefore these two subjects will be analysed together in this impact assessment.

Assessment of language proficiency

While language testing is a specialised domain, there is no globally recognised single language testing authority, nor is there a single, universally accepted, best approach to language testing. As a result, there is some variability in the development and administration of language testing programmes.[17] However, there are well-established principles and practices at ICAO level on which there is widespread professional agreement, yet they did not appear so far in the European legislation governing the licensing of air traffic controllers.

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[14] Manual on the Implementation of ICAO Language Proficiency Requirements (ICAO Doc 9835), Foreword, page (vii).

[15] Manual on the Implementation of ICAO Language Proficiency Requirements (ICAO Doc 9835), Foreword, page (vii).

[16] Manual on the Implementation of ICAO Language Proficiency Requirements (ICAO Doc 9835) and the Language Testing Criteria for Global Harmonization (ICAO Cir 318 AN/180).

[17] ICAO Doc 9835 - Manual on the Implementation of ICAO Language Proficiency Requirements, Chapter 2., General Introduction to Language Proficiency and Language Acquisition.

Maintaining the quality of language skills at expert level

Revalidation criteria for the acquired language proficiency endorsements are set out in the EU rules (Article 13 of Regulation (EU) No 805/2011) based on the ICAO recommendation below.

1.2.9.7 **Recommendation.—** *The language proficiency of aeroplane, airship, helicopter and powered-lift pilots, flight navigators required to use the radiotelephone aboard an aircraft, air traffic controllers and aeronautical station operators who demonstrate proficiency below the Expert Level (Level 6) should be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level, as follows:*

a) those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and

b) those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years.

Note 1.— Formal evaluation is not required for applicants who demonstrate expert language proficiency, e.g. native and very proficient non-native speakers with a dialect or accent intelligible to the international aeronautical community.

ICAO considers monolingual native speakers, multilingual speakers who include the language as one of their native languages, and foreign language speakers who have acquired a high level of proficiency as probable expert speakers and does not require formal evaluation and reassessment of their proficiency. EU rules, however, require at least one formal evaluation of all applicant air traffic controllers but do not set any revalidation intervals for expert level speakers.

The expectation that all expert level speakers will consistently perform at the highest level of proficiency in all areas of the language is not founded on real observations. Native speakers may lack the vocabulary to discuss certain themes or may speak with a regional accent that is an impediment to intelligibility for those outside that region.

Non-native speakers are frequently classified into two groups. Second language (L2) speakers are those in whose country a given language is used alongside a first language for internal communications. Usually, they have used the language from a very young age and, in these areas, a distinct variety of the language has usually evolved. Foreign language (FL) speakers are those who have learned to use a language for communication with speakers from other countries. Their learning has usually begun in late childhood or adulthood. As with native speakers, however, these distinctions fail to be supported by observations of real performance. Both categories of non-native speakers can display a wide variety of levels of proficiency.

Researchers have distinguished two cognitive processes in the ways in which people develop language proficiency that are partially related to age and environment. These processes are distinguished by the terms 'learning' and 'acquisition'. The process of language 'learning' is analytical and conscious and is typically set in motion by adults needing to use a foreign language. The process of language 'acquisition' is the one whereby infants learn their first language, or immigrants in a new community learn a second language. It comes about unconsciously through meaningful contact with and use of a language. The results of the language acquisition process tend to be more stable and are considered to be the foundations of spontaneous uses of language. However, one disadvantage of this process is the possible 'fossilization' of skills. This means that a user's level of proficiency in certain skills may stop developing at a level where the user unconsciously remains comfortable. This level might not, however, meet the proficiency requirements of the community.

It is known from experience and practical observation that language loss occurs. Deterioration to some degree in the language proficiency of individuals who do not use their second or foreign language for a long time is a common experience. What is not known is at what rate such loss occurs or at what point language loss does not occur. While loss of a second or foreign language is a commonly observed occurrence, people do not normally lose fully acquired first languages.

Therefore, it is important — where language proficiency is part of a career long requirement — for it to be considered over time, with periodic renewals of assessment associated with the provision of sufficient practice and skill refresher opportunities.[18]

Air traffic controllers with a 4 or 5 language proficiency level are today assessed at regular intervals. This is not the case for air traffic controllers with level 6. Based on the issues presented above, the frequency of assessment for language proficiency at expert level (level 6) needs to be addressed.

7.2 Who is affected?

Assessment of language proficiency and the maintenance of the quality of the language skills at expert level affect mainly air traffic controllers, but it has an impact also on language assessment bodies, air navigation service providers and competent authorities.

Table 5: Number of air traffic controllers per English proficiency level, 2010[19]

Country	Level 4	Level 5	Level 6
Austria	20	270	40
Denmark	0	3	326
Finland	192	140	3
France	4 400	310	2
Germany-TTC	35	43	6
Germany-DFS	566	1 072	500
Portugal	80	250	0
Slovakia	63	66	8
Spain	1 487	435	91
Sweden	47	345	352
Switzerland	280	295	5
Total	7 170	3 229	1 333

Table 6: English proficiency levels of air traffic controllers, 2010[20]

Country	Level 4	Level 5	Level 6
Austria	6%	82%	12%
Denmark	0%	1%	99%
Finland	57%	42%	1%
France	93%	7%	0%
Germany-TTC	42%	51%	7%
Germany-DFS	26%	50%	23%
Portugal	24%	76%	0%
Slovakia	46%	48%	6%
Spain	74%	22%	5%
Sweden	6%	46%	47%
Switzerland	48%	51%	1%
Total	61%	28%	11%

[18] ICAO Doc 9835 - Manual on the Implementation of ICAO Language Proficiency Requirements, Chapter 2., General Introduction to Language Proficiency and Language Acquisition.
[19] EASA questionnaire on ATCO language proficiency, July 2012.
[20] EASA questionnaire on ATCO language proficiency, July 2012.

Figure 2: Share of English proficiency levels of air traffic controllers, 2010

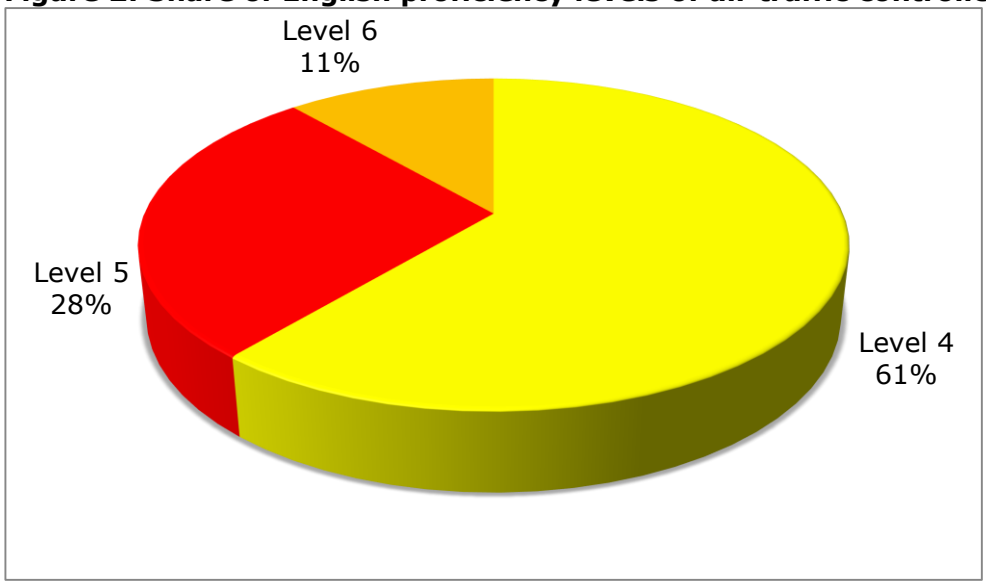
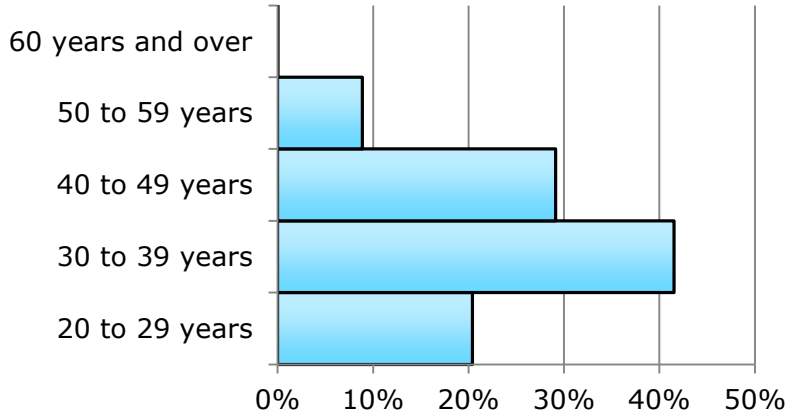


Table 7: Age distribution of Level-6-proficient air traffic controllers, 2010[21]

Country	20 to 29 years	30 to 39 years	40 to 49 years	50 to 59 years	60 years and over
Austria	45%	35%	15%	5%	0%
Denmark	10%	36%	37%	17%	0%
Finland	0%	67%	33%	0%	0%
France	23%	37%	23%	16%	1%
Germany-TTC	33%	67%	0%	0%	0%
Germany-DFS	21%	46%	28%	5%	0%
Slovakia	75%	25%	0%	0%	0%
Spain	40%	40%	15%	5%	0%
Switzerland	0%	20%	80%	0%	0%
Weighted average	20%	42%	29%	9%	0%

[21] EASA questionnaire on ATCO language proficiency, July 2012.

Figure 3: Age distribution of level-6 proficient air traffic controllers, 2010



7.3 What are the safety risks?

Inappropriate assessments and inadequate aviation language testing are posing serious safety risks and have highly negative social and economic consequences. Although very few evidence of direct safety risk exist with the currently applicable rules for assessments, the issue poses a concern based on scientific evaluation of the subject as explained in Chapter 6 of the ICAO Manual on the Implementation of ICAO Language Proficiency Requirements[22].

7.4 Objectives

The objective is to limit the safety risks originating from the lack of requirements applicable to the assessment of language proficiency as well as to eliminate the possibility of maintaining expert level proficiency based on eventually inadequate assessments and to establish means to detect and mitigate possible language erosion.

7.5 Identification of options

Assessment of language proficiency

Option 0 — Do nothing

Option 0 maintains the system established by Regulation (EU) No 805/2011, according to which the assessment procedure shall be approved by the competent authority (Article 13(7)), but no further requirements are specified.

Option 1 — Incorporate relevant ICAO requirements into EU legislation

Option 1 incorporates the basic elements of the method of assessment established by the competent authority into the Implementing Rule, which is then accompanied by AMC level material containing further detailed requirements relevant to the assessment.

[22] ICAO Doc 9835 - Manual on the Implementation of ICAO Language Proficiency Requirements, Chapter 6. Language Testing Criteria for Global Harmonization.

Maintaining the quality of language skills at expert level

Option 0 — Do nothing

Option 0 maintains the system established by Regulation (EU) No 805/2011, according to which only proficiency levels 4 and 5 require regular reassessment at given intervals; level 6 (expert level) proficiency is however granted for an indefinite period of time.

Option 1 — Establish a validity period for expert level language proficiency

Option 1 establishes a validity period for the expert level (level 6) language proficiency and requires revalidation at intervals higher in proportion compared to lower proficiency levels.

7.6 Analysis of impacts

Safety impact

Inappropriate assessments and inadequate aviation language testing are posing serious safety risks. Flight safety depends, among other issues, on the effectiveness of pilot and air traffic controller communication. Efficient transfer of operational information is vital. Therefore, reliable, effective and valid testing systems are required to ensure that pilots and controllers demonstrate adequate levels of language proficiency.[23]

Assessment of language proficiency

Option 0 has a slightly negative impact on safety, as it does not define any criteria to be followed by the language assessment bodies.

Option 1, however, contributes to reaching a higher level of safety with defined and commonly applicable basic requirements.

Maintaining the quality of language skills at expert level

Option 0 has a potential negative impact as it does not offer any possibility to rectify the effects of inappropriate assessments or inadequate language testing, nor does it take into account language erosion at expert level proficiency (level 6).

Option 1 and the proposed validity period for the expert level (level 6) language proficiency mitigates these shortcomings; its impact is therefore positive.

Conclusion for safety impacts:

Safety impacts	*Option 0*	*Option 1*
Assessment of language proficiency	–	+
Maintaining the quality of language skills at expert level	–	+
Overall	**–**	**+**

Environmental impact

Not applicable.

[23] ICAO Doc 9835 - Manual on the Implementation of ICAO Language Proficiency Requirements, Chapter 6. Language Testing Criteria for Global Harmonization.

Social impact

Inappropriate assessments and inadequate aviation language testing have highly negative social consequences. The results of language testing can have a serious impact on both individuals and organisations.

Air traffic controllers not demonstrating compliance with the language proficiency requirements may be denied a licence, a consequence which may severely impact the career of the individual as well as the staffing requirements of the air navigation service provider for whom the individual works.[24] Moreover, inadequate testing may result in serious discrepancies between the actual proficiency levels of individuals tested in different environments even within the same or in different Member States, or tested via different assessment tools and methods, which ultimately affect the EU-wide recognition of licences.

Assessment of language proficiency

Option 0 has a slightly negative social impact; *option 1,* however, is considered slightly positive as it creates a European level playing field with defined and commonly applicable basic requirements.

Maintaining the quality of language skills at expert level

Option 0 has a potential negative social impact on working conditions and air traffic controller mobility as it maintains discrepancies as regards the requirements to reach expert level language proficiency (level 6).

Option 1, however, contributes to the mobility of air traffic controllers and is thus considered positive.

Conclusion for social impacts:

Social impacts	*Option 0*	*Option 1*
Assessment of language proficiency	–	+
Maintaining the quality of language skills at expert level	–	+
Overall	**–**	**+**

Economic impact

Assessment of language proficiency

Inappropriate assessments and inadequate aviation language testing may also have negative economic consequences. Competent authorities and air navigation service providers have no funds to waste on inadequate or unproven tests, nor can they afford to lose otherwise competent staff as an outcome of inadequate testing. Ultimately, they cannot afford accidents attributable to ineffective pilot/controller communication.[25]

Option 0, i.e. the current situation will remain with an uneven implementation of the well-established principles and practices at ICAO level. There is no change with the current situation, hence no additional economic impacts.

Option 1 will ensure cost-efficient implementation with requirements in line with the well-established principles and practices at ICAO level. Few costs impacts are expected for the

[24] ICAO Doc 9835 - Manual on the Implementation of ICAO Language Proficiency Requirements, Chapter 6. Language Testing Criteria for Global Harmonization.

[25] ICAO Doc 9835 - Manual on the Implementation of ICAO Language Proficiency Requirements, Chapter 6. Language Testing Criteria for Global Harmonization.

training organisations, which are not in line with the well-established principles and practices at ICAO level.

Maintaining the quality of language skills at expert level

Via *option 0* the current situation will remain with no reassessment of air traffic controllers at language proficiency level 6, hence there will be no additional costs for level 6 language checking. Nevertheless, the negative social impact on mobility for air traffic controllers has automatically a negative economic impact.

Option 1 with the introduction of a validity period accompanied by reassessments for level 6 proficient air traffic controllers implies costs to be borne by the air navigation service providers. The testing costs are in the range of EUR 100 to 300 (this includes the examiner cost and renting a room for the assessment). The duration of the examination is in the range of 1 to 2 hours. The duration of preparation for a level 6 air traffic controller to repeat this test is estimated to last very few hours in the best case if his/her language skills remained at the appropriate level. If these skills have decreased over time (hence the reason to propose option 1), the time to prepare this reassessment would increase in a proportion which cannot be known due to lack of information and depending on the individual cases.

Overall for option 1, looking at the relatively low number of air traffic controllers with level 6 (see Table 5: Number of air traffic controllers per English proficiency level, 2010) and the few minor cost impacts identified in the previous paragraph, this cost impact is rather limited and it will promote better mobility for air traffic controllers across the European Union.

Conclusion for economic impacts:

Economic impacts	*Option 0*	*Option 1*
Assessment of language proficiency	0/–	0/–
Maintaining the quality of language skills at expert level	0/–	0/–
Overall	**0/–**	**0/–**

Proportionality issues

Not applicable.

Impact on regulatory coordination and harmonisation

Although (as indicated before) the two issues are interrelated, their possible impact from the regulatory coordination and harmonisation point of view is different based on their relation to the currently applicable ICAO requirements.

Assessment of language proficiency

Option 0 has a negative impact in terms of regulatory coordination and harmonisation as it does not take into account the developments at ICAO level.

Option 1 aligns EU rules with the ICAO SARPs and it therefore has a positive impact in this regard.

Maintaining the quality of language skills at expert level

Option 0 has no impact in terms of regulatory coordination and harmonisation as it does not differ from the currently applicable ICAO SARPs.

Option 1, however, creates stricter requirements to be followed in the EU; therefore, its impact in this regard could be considered negative. One should note, however, that recent ICAO fora suggest considering the same approach to be followed at global level.

Conclusion for impacts on regulatory coordination and harmonisation:

Regulatory coordination and harmonisation impacts	*Option 0*	*Option 1*
Assessment of language proficiency	–	+
Maintaining the quality of language skills at expert level	–	+
Overall	**–**	**+**

7.7 Conclusion and preferred option

Comparison of options

Type of impacts	*Option 0*	*Option 1*
Safety impacts	–	+
Social impacts	–	+
Economic impacts	0/–	0/–
Regulatory coordination and harmonisation impacts	–	+
Overall	**–**	**+**

Conclusion

Knowing that option 1 could have only slightly negative economic impacts, while ensuring safety and social mobility for air traffic controllers, it is the preferred one.

8 INSTRUCTORS AND ASSESSORS

8.1 What is the issue and the current regulatory framework?

Article 8c(7) of Regulation (EC) No 216/2008 (the Basic Regulation) requires persons responsible for providing practical training or for assessing air traffic controllers' skills to hold a certificate which shall be issued when the person has demonstrated that he/she complies with the rules established to ensure compliance with the relevant essential requirements as set out in Annex Vb.

The relevant essential requirements are to be found in paragraph 4 of the said Annex Vb and are the following.

(g) Instructors

(i) Theoretical instruction shall be given by appropriately qualified instructors. They shall:
i. have appropriate knowledge in the field where instruction is to be given; and
ii. have demonstrated the ability to use appropriate instructional techniques.
(ii) Instruction on practical skills shall be given by appropriately qualified instructors, who have the following qualifications:
i. meet the theoretical knowledge and the experience requirements appropriate to the instruction being given;
ii. have demonstrated the ability to instruct and to use appropriate instructional techniques;
iii. have practised instructional techniques in those procedures in which it is intended to provide instruction; and
iv. receive regular refresher training to ensure that the instructional competences are maintained.
(iii) Instructors on practical skills shall also be or have been entitled to act as an air traffic controller.

(h) Assessors

(i) Persons responsible for assessing the skill of air traffic controllers shall:
i. have demonstrated the ability to assess the performance of, and conduct tests and checks on air traffic controllers; and
ii. receive regular refresher training to ensure that the assessment standards are maintained up to date.
(ii) Assessors on practical skills shall also be or have been entitled to act as an air traffic controller in those areas in which assessment is to be made.

Regulation (EU) No 805/2011, which is the first result of the 'fast-track' implementation of the Basic Regulation, does not ensure compliance with the above-mentioned requirements as it only transposed the very limited existing rules of Directive 2006/23/EC in this domain and postponed the establishment of appropriate Implementing Rules for instructor and assessor certification for the second phase of rulemaking.

The issues are the following:

- lack of current requirements to implement the Basic Regulation in the field of persons responsible for providing practical training or for assessing air traffic controllers' skills;
- the diversity of national requirements for instructors and assessors may create concerns on the recognition of the licences at EU level and may prevent air traffic controllers mobility.

8.2 Who is affected?

No stakeholder is affected as long as the current regulatory framework is not complemented with relevant requirements to fill in the gap between the Basic Regulation and Regulation (EU) No 805/2011.

Stakeholders subject to the lack of detailed common EU requirements are:

- Persons currently participating in the training, checking and testing of air traffic controllers are all affected, irrespective of the terms used to distinguish them from other categories (examples are: instructors, on-the-job training instructors, examiners, assessors, etc.). However, the way they are affected is different, depending on the eventual existence of national rules governing their activities and on the requirements set out by these national rules.

  Currently, air traffic controllers may have an on-the-job training instructor (OJTI) endorsement on their licence, which is recognised at EU level. No other commonly acknowledged instructor category exists in the EU. Certainly Member States may have different entitlements with different qualification and experience requirements, but those do not offer a basis for EU-level recognition.
- Training organisations and air navigation service providers: they will have to review the qualifications of their relevant staff and provide additional training and testing to cover the eventually missing elements.
- Competent authorities will have to establish the necessary requirements for the conversion of existing national qualifications and to adapt their systems to the new requirements.

8.3 What are the safety risks?

Even if the overall safety level is high, there is a safety risk due to the considerably high diversity of the background and qualifications of personnel entrusted with the tasks of instructors and assessors in the different Member States, which is likely to influence the outputs of their activity as regards the qualification and assessment of air traffic controllers.

8.4 Objectives

The specific objective is to ensure an adequate set of rules to be compliant with the Basic Regulation by creating common rules for the qualification and certification of persons involved in the training, testing and checking of air traffic controllers and thus to establish harmonised categories of these personnel throughout the EU.

In order to ensure a proportionate and smooth implementation of the rules, additional objectives are to create categories within these personnel that are based on proportionate requirements related to their functions and responsibilities, to offer the necessary flexibility for specific cases, and to ensure EU-wide recognition of their qualifications.

8.5 Identification of options

Option 0 — Do nothing

This option would maintain the current system as in Regulation (EU) No 805/2011, and would not establish compliance with the Basic Regulation.

Option 1 — Elaborate a new system for instructors and assessors

Such option foresees the creation of a new system with numerous new elements and categories in order to ensure proportionality, flexibility and compliance with the Basic Regulation's safety objectives.

Option 1 would affect the different stakeholders as follows:

Air traffic controllers

Instructors

Currently air traffic controllers may have an on-the-job training instructor (OJTI) endorsement on their licence, which is recognised at EU level. No other commonly acknowledged instructor category exists in the EU. Certainly Member States may have different entitlements with different qualification and experience requirements, but those do not offer a basis for EU-level recognition. The proposed synthetic training device instructor (STDI) endorsement doesn't only offer this advantage, but creates a category of practical instructors who have limited privileges compared to the OJTIs based on less strict prerequisite requirements. This category offers an alternative to those air traffic controllers whose licence is no longer valid due to e.g. medical grounds or retirement.

Assessors

Regarding the assessor endorsement the requirements are new; therefore, the first challenge for the air traffic controllers is to meet those requirements and obtain the endorsement. Following that, the EU-level recognition of their newly acquired privilege becomes applicable.

Training organisations & air navigation service providers

Training organisations and air navigation service providers have first to bear the costs of ensuring compliance with the new system either by converting the existing national qualifications for previously employed assessors and examiners, or by training and assessing (or reassessing) personnel to become STDIs. Regarding the training of these categories of personnel they have to develop and provide the necessary training courses and establish the methods of assessments, both of which need to be approved by the competent authority.

On the other hand there are also advantages for these organisations, as they may also benefit from the newly created STDI category, as it offers them the possibility to further employ and benefit from the experience of those air traffic controllers whose licence is no longer valid due to e.g. medical grounds or retirement.

Competent authorities

Competent authorities need also to adapt to the new system; they have first to assess their eventually existing national qualifications, for which in the absence of previous common EU rules no grandfathering is foreseen, and have to establish the necessary conversion requirements. Secondly, they also have to prepare for the issue of the newly established endorsements by approving the necessary training courses and assessment methods, and by establishing the relevant administrative steps.

8.6 Analysis of impacts

Safety impact

The current low safety risk is not mitigated with *option 0*. This safety risk may increase over time. Therefore, it is scaled between negative and neutral.

Option 1, however, offers a new system, including the categorisation of instructors and assessors, and establishes the privileges of these different categories based on their qualifications, experience, tasks and responsibilities. Linking the privileges to the qualification and experience requirements offers a risk-based approach and thus contributes to reaching a higher level of safety. Therefore, the score of option 1 is positive in this regard.

Conclusion for safety impacts:

	Option 0	*Option 1*
Safety impacts	0/–	+

Environmental impact

Not applicable.

Social impact

Although *option 0* maintains the current system, it has a rather negative social impact as the current system does not offer at EU level any other endorsement than the OJTI. Recognition of air traffic controller licences could become an issue over time without requirements at EU level on the instructor and assessor qualifications and certification in the ATM/ANS domain. National qualifications may exist, but they do not offer recognition at EU level.

Option 1, however, introduces further categories at EU level, with which the basis for the EU-wide recognition is established. This will support in addition the recognition of air traffic controller licences. Therefore, the social impact of option 1 is considered positive.

Conclusion for social impacts:

	Option 0	*Option 1*
Social impacts	–	+

Economic impact

From an economic point of view o*ption 0*, which is the 'do nothing' option, does not imply additional costs as it maintains the current system.

Implementing the changes as in *option 1* will result in additional costs for the training organisations and air navigation service providers, as compliance with the new requirements needs to be ensured, which may necessitate additional training and testing of the personnel and eventually also additional staff. The scale of the impact will certainly depend on the current national practices followed in the Member States. Since the established requirements especially for the training of instructors and assessors are of rather general nature and should already exist in the Member States' legal system, no significant costs are expected.

However, once the changes are implemented training organisations and air navigation service providers may benefit from more efficient use of staff due to the introduction of the STDI category. This category of practical instructors with limited privileges offers an alternative source of employee, since they may continue working when their licence will be no longer valid due to e.g. medical grounds or retirement.

Conclusion for economic impacts:

	Option 0	*Option 1*
Economic impacts	0	0/–

Proportionality issues

Proportionality is not an issue for *option 0* as only a very small segment is regulated via the EU system.

Regarding *option 1*, establishing common requirements for these categories of personnel has certainly advantages, but in certain cases though meeting these requirements could not be ensured by objective reasons. Establishing a too rigid system with no flexibility to accommodate unusual circumstances or the differences between small and big organisations

would have negative consequences. Therefore, a number of different exceptions has been included in the system, for example: shortening the required two years' experience in the rating for OJTIs when requested by the training organisation; introducing the possibility of the temporary OJTI authorisation for special circumstances, like the establishment of a new ATC unit or introducing a new rating or rating endorsement in the existing ATC unit; or authorising assessors from another unit; or authorising assessors not meeting the experience requirements in certain well-defined cases, provided that other mitigation criteria are met. For these reasons the score of option 1 in this regard is positive.

Conclusion proportionality issues:

	Option 0	*Option 1*
Proportionality issues	0	+

Impact on regulatory coordination and harmonisation

As explained above, due to the very little common standards *option 0* has been scored negatively in the subject of regulatory coordination and harmonisation.

Option 1 is, however, regarded positive, since it is filling the gap between the Basic Regulation and Regulation (EU) No 805/2011 by establishing common criteria to be met by these categories of personnel which are then the basis for the EU-wide recognition of their qualification.

Conclusion for impacts on regulatory coordination and harmonisation:

	Option 0	*Option 1*
Regulatory coordination and harmonisation	–	+

8.7 Conclusion and preferred option

Comparison of options

	Option 0	*Option 1*
Safety impacts	–	+
Social impacts	–	+
Economic impacts	0	–
Proportionality issues	0	+
Regulatory coordination and harmonisation impacts	0	+
Overall	**–/0**	**+**

9 APPROACH TO INITIAL TRAINING — TRANSPOSITION OF THE COMMON CORE CONTENT (CCC)

9.1 What is the issue and the current regulatory framework?

The subject is about 'changed approach to Air Traffic Controller initial training' as explained in paragraphs 105–111 of the Explanatory Note.

Background

Air traffic control training has historically been the remit of EUROCONTROL, which has achieved a high level of harmonisation through voluntary participation of affected stakeholders' representatives in its working arrangements. The EUROCONTROL Guidelines for Air Traffic Controller Common Core Content Initial Training (insofar the 'EUROCONTROL Guidelines') and successively the EUROCONTROL Specification for Air Traffic Controller Common Core Content Initial Training (insofar the 'EUROCONTROL Specification') have been developed by dedicated stakeholder groups. The latter was subject to public formal consultation in using the EUROCONTROL Notice of Proposed Rule-making Regulatory Process (ENPRM). Such arrangements permitted to ensure a high level of acceptance of the training methodology, structure and contents.

The EU regulators recognised the value of the above-mentioned EUROCONTROL documents by referencing them in both Directive 2006/23/EC (the EUROCONTROL Guidelines) and in Regulation (EU) No 805/2011 (the EUROCONTROL Specification) to establish the content of initial training.

Current legislation in force for air traffic controller initial training

Based on Article 5(2) of Regulation (EU) No 805/2011, a student air traffic controller licence shall be granted to applicants who have successfully completed approved initial training as set out in Part A of Annex II to that Regulation. Part A of Annex II requires initial training to ensure that student air traffic controllers satisfy at least the objectives for basic and rating training as described in the EUROCONTROL Specification and establishes a list of subjects that shall be taught.

As part of the so-called 'fast-track' approach, Regulation (EU) No 805/2011 represents the transposition, with only the necessary updates, of the contents of Directive 2006/23/EC into provisions directly binding in all Member States. As far as initial training of student air traffic controllers is concerned, it does introduce substantial changes, replacing the reference from the previous EUROCONTROL Guidelines published on 10 December 2004 with the EUROCONTROL Specification published on 21 October 2008.

Conflicting issues

The EASA Basic Regulation

Annex Vb to Regulation (EC) No 216/2008 (insofar the 'EASA Basic Regulation') introduced new explicit requirements which are to be satisfied by the Commission with the adoption of specific Implementing Rules. These requirements were not implemented by Regulation (EU) 805/2011 which was introduced under the so-called 'fast track' approach, not envisaging substantial changes from the content of the Directive 2006/23/EC. In particular, paragraph 4 of Annex Vb 'Qualification of air traffic controllers' establishes a number of essential requirements that are to be met in order to guarantee that air traffic controllers are properly qualified and trained.

Paragraphs 4(b) and (c) establish the requirements for theoretical and practical training, including a list of subjects that individuals have to successfully pass to acquire a student air traffic controller licence.

In addition, requirements in (f) 'Training course' state:

(i) training shall be given by a training course, which may comprise theoretical and practical instruction, including training on an STD, if applicable;

(ii) a course shall be defined and approved for each type of training.

For the achievement of the student air traffic controller licence the training to be imparted has been identified as an initial training course, which can also be imparted as two separate courses: a basic course and a rating training course.

Gaps between Regulation (EU) No 805/2011 and the EASA Basic Regulation

Ambiguous interpretation of initial training contents

It is necessary to implement the requirement as set out in Article 4(b)(i) of Annex Vb to the EASA Basic Regulation, namely: 'Acquisition of a level of knowledge which is appropriate to the functions exercised and proportionate to the risks associated'. An overly-precise and possibly diverse interpretation of the term 'objectives for basic and rating training as described in EUROCONTROL's Specification' as in Part A of Annex II to Regulation (EU) No 805/2011 may lead to differences in the contents being taught and therefore in the level of safety reached when complying with the requirement set out in the EASA Basic Regulation. Specifically, it could be unclear which initial training objectives and related contents are binding, as in the EUROCONTROL Specification there are objectives set at different levels, namely general objectives associated to the subjects and objectives associated to subtopics. This may leave room for interpretation on which objectives are mandatory or not, resulting in potential differences in contents of initial training amongst training organisations.

Incomplete requirements for initial training

Regulation (EU) No 805/2011 does not establish full compliance with the essential requirements set out in paragraph 4 of Annex Vb to the EASA Basic Regulation, which require the establishment and approval of a training course for each type of air traffic controller training, and the definition of objectives for examinations and assessments of applicants.

Flexibility in implementing and amending the rules

Regulation (EU) No 805/2011 does not propose AMC material and therefore makes no distinction between binding and non-binding content. This distinction is important to allow a flexible update of training provisions where the air traffic controller environment frequently changes (e.g. an AMC subject to EASA's rulemaking procedure and published via a Decision of EASA's Executive Director can be amended with a much shorter procedure than going through comitology for updating Regulation (EU) No 805/2011). Moreover, the appropriate use of AMC and GM should facilitate the flexible implementation of the binding provisions and thus meet the requirement of proportionality.

Mutual recognition for student air traffic controller licence

Initial training leads to the issuing of a student air traffic controller licence, which shall be mutually recognised by authorities and organisations subject to EU legislation. Defining in EU legislation the appropriate contents to be imparted to applicants for basic and rating training courses shall ensure that applicants will always be trained according to the same high-quality standards. This achievement should contribute to maintaining a uniform level of safety in air traffic control service and enabling the effective recognition of licences.

Part A of Annex II to Regulation (EU) No 805/2011 requires to 'satisfy at least the objectives for basic and rating training, as described in EUROCONTROL Specification for Air Traffic Controller Common Core Content Initial Training'. This allows EU Members States to complement or modify the initial training with their own objectives and content before issuing the student licence, as well as to question, by other Member States, whether the initial training actually received by a student air traffic controller in Member State 'A' really meets the same

objectives as required in Member State 'B'. Such ambiguity questions the common standard that is required for the recognition of the air traffic controller student licence across the EU.

9.2 Who is affected?

- Applicants for student air traffic controller licence: the individual who shall be trained in accordance with the relevant ATCO initial training provisions for the achievement of a student ATCO licence.
- Student air traffic controller and licensed air traffic controller applying for an additional rating or rating endorsement: the individual who shall be trained in accordance with the relevant ATCO initial training provisions respectively for the achievement of an additional rating or, where applicable, rating endorsement to his/her licence.
- Air traffic controller training organisation: in charge of providing initial training as established by the relevant EU legislation in force. It shall implement the initial training provisions and provide initial training courses accordingly.
- Air Traffic Service Provider: interested in the establishment of a high and uniform standard of initial training, which represents a fundamental step to prepare air traffic controllers it employs.
- Competent authority: responsible for the approval of the air traffic controller initial training courses as well as of their oversight, in accordance with the subject EU legislation in force.
- The Agency (EASA): EASA is in charge of implementing the subject matters' requirements as in the Basic Regulation by proposing an adequate set of regulatory measures, to maintain the initial training provisions up to date, and to verify through the standardisation inspection the correct application of the relevant EU legislation in force.
- EUROCONTROL: the organisation which has produced and published the Specification, in cooperation with its stakeholders. EUROCONTROL is supporting EASA in the review and update of the content of the Specification that is proposed to be included in the EU legislation. EUROCONTROL could play a role in the future review and update of the initial training content with both option 1 (supporting EASA in maintaining the initial training content) and option 2 (to produce and publish new editions of the Specification).

9.3 What are the safety risks?

In principle, legislation addressing air traffic controller training shall be established and maintained up to date with the latest air traffic control provision standards, practices and technological novelties. As regards content of initial training, Regulation (EU) No 805/2011 refers to the EUROCONTROL Specification which was published on 21 October 2008; in the meantime, air traffic control standards, procedures and system support, as well as aviation technology, have evolved, but such evolution is not represented in the content of the actual referenced document. If the new implementing measures will not be maintained current with the 'state of the art' air traffic control standards and techniques, air traffic controllers in operations could face situations for which they were not trained or did not receive appropriate background information and this could create risks to the safety of air traffic.

As mobility of air traffic controllers is one of the main objectives of these implementing measures, initial training content shall be established in EU legislation to ensure that any student air traffic controller is licensed according to the same high quality safety standards.

Without standardisation of initial training courses, student ATCO licences would not build on the same pedagogical path (such as content and methodologies), and more in general the quality of the training provided could vary amongst training organisations. In some cases there could potentially be a lack of fundamental ATC-related knowledge which is expected to be imparted by initial training. As a consequence, there is the risk that:

- this lack of background knowledge becomes evident during the unit training and the result is non-issuance of the ATCO licence. In this case there is no risk for safety, but a significant social and economic impact because of the costs of ATCO training and human resources planning which did not deliver the expected results;
- even with an issued ATCO licence there would be a latent safety risk resulting from a non-standardised initial training.

9.4 Summary of the issue analysis

The new regulatory approach shall therefore consider the following issues:

- recognition of student air traffic controller licences across the EU without creating social mobility concerns for air traffic controllers;
- allowing a flexible approach to the necessary updates of the technical content relevant to initial training while maintaining the long-term standardisation of initial training by a clear differentiation between binding and non-binding material;
- requirements relevant to the establishment of training courses, including performance objectives and examinations and assessments of applicants;
- a uniform interpretation of the training objectives to reduce safety concerns as well as to establish harmonisation.

9.5 Objectives

- To define and harmonise basic and rating training contents for air traffic controllers initial training courses in order to ensure uniform high level of safety.
- To train student air traffic controllers so that their licence represents a common level of knowledge, understanding and skills.
- To establish common and clear legislation addressing air traffic controller initial training to enable mutual recognition of licences.
- To allow the necessary flexibility in the provision of initial training courses with the clear definition and separation of binding and non-binding provisions.
- To establish a system allowing the systematic and timely review and update of the content of the initial training, in order to maintain it up to date with the current air traffic control service practices and current EU regulations and international standards in force.
- To allow for the necessary flexibility in the implementation by clearly defining the binding content via Implementing Rules and complementing those with soft law material, as necessary.

9.6 Identification of options

With the entry into force of the EASA Basic Regulation, the regulatory responsibilities concerning air traffic controller training have been allocated to the Agency. In the analysis above shortcomings and gaps have been identified and have to be considered when proposing the solution for the implementation of a harmonised and effective training under the new regulatory framework established by the EASA Basic Regulation.

Several options for the implementation of the essential requirements established in the EASA Basic Regulation concerning air traffic controller initial training are listed in this chapter. For each of them EASA envisages to consider the EUROCONTROL Specification as the main input as regards initial training.

The four identified options are:

Option 0 — Do nothing

This option is only theoretical as there is a regulatory mandate from the EASA Basic Regulation to implement requirements for initial training courses and this requires the introduction of new implementing measures (in particular as regards the contents of basic and rating courses), because as explained above the existing provisions of Regulation (EU) No 805/2011 are not sufficient.

Option 1 — Transposition

To ensure continuity with the existing Regulation and in recognition of the value of the EUROCONTROL Specification, but with the aim to fully implement the regulatory mandate of the EASA Basic Regulation, option 1 proposes transposition of EUROCONTROL Specification syllabi contents into the EU legislation.

- The methodology adopted for the transposition is presented in paragraph 110 and 111 of the Explanatory Note.
- The methodology adopted for the transposition shall enable the clear identification and separation of binding and non-binding contents of the basic and rating training syllabi to be respectively published in Implementing Rules and Acceptable Means of Compliance.

Initial training content review and update mechanism with option 1

Current update for the purposes of this Opinion/Decision

The EUROCONTROL Specification was published in 2008 and hasn't been revised since then. Due to the necessity to establish in the EU legislation training requirements which reflect the state of the art and best practices in air traffic control training, a revision is required. This would also allow the update of references to EU legislation and international standards.

To acknowledge the above needs, with option 1 EASA would adopt the following approach:

- initial training contents proposed in this NPA would be extracted from the EUROCONTROL Specification Edition 1.0 of 21 October 2008; only minimal changes with regard to EU legislation that entered into force since 21 October 2008 were introduced with the cooperation of EUROCONTROL;
- EUROCONTROL has initiated a stakeholder working arrangement, the ATCO Common Core Content Training Task Force, to perform a substantial review and update of the initial training material on request of EASA. The resulting proposals will be delivered to EASA and would be taken into account to amend the initial training requirements together with other comments received during the NPA consultation period;
- the EASA Opinion, and the related Decision, would include up-to-date initial training content on the basis of the review and update activity described above.

Future periodical review and update

EASA acknowledges also the need for a periodical update of the future provisions addressing ATCO initial training in order to include regulatory, industrial and technological novelties and keep it aligned with international standards.

EASA would consider implementing, within its rulemaking process, a continuous rulemaking task specific to this purpose. The future involvement of EUROCONTROL, with the contribution of stakeholders' subject matter working arrangements, would be considered by EASA as the most effective support.

Option 2 — Referencing

Option 2 proposes inclusion of the content of the EUROCONTROL Specification into the EU legislation by referencing it in the Implementing Rules on ATCO licensing (today: Annex I, Part ATCO, Subpart D, Section 2). In order to avoid the issues in Section 9.4 above, the text to be adopted with the reference shall be improved from the one used in Regulation (EU) No 805/2011. It shall be the convention established within the EUROCONTROL Specification to specifically designate its binding, being integral part of the Implementing Rule, and non-binding material (e.g. what falls under the title 'Optional content' in the document).

With option 2 none of the technical content of the EUROCONTROL Specification is included in AMC.

With option 2 EASA does not need to establish a rulemaking task for the periodical review and update of initial training content transposed in the EU legislation as proposed in option 1, as it will remain the responsibility of EUROCONTROL to maintain current the content of the initial training and to publish the resulting updates with the issue of new editions of the Specification.

For the implementation of this option, it is proposed to consider two alternatives:

2a) Static referencing

The implementing measures will refer to a specific edition of the EUROCONTROL Specification. In this case, in order to maintain the initial training content up to date each time a new version of such document is issued, it will be necessary to amend the existing implementing measures, following the EASA rulemaking procedure as well as the comitology procedure, which are known to be time-consuming.

2b) Dynamic referencing

The implementing measures will refer only to 'EUROCONTROL Specification', meaning the latest published edition of the EUROCONTROL Specification. This may decrease legal certainty on the edition to be applied and increase uncertainty on the uniformity of initial training content imparted by the numerous training organisations. A mechanism to ensure that all affected training organisations apply timely and uniformly the latest version of the EUROCONTROL Specification from a given date (ensuring that way the effective standardisation of basic and rating training contents) should be defined and implemented.

9.7 Analysis of impacts

The analysis of the impacts is provided following this process:

1. The analysis of impacts will first provide general considerations on the assessment of the options.
2. Common characteristics will be extracted from these general considerations and will be summarised in a table. For each identified option this table will also indicate which characteristics can be considered pros or cons.
3. Then the safety, social, economic and regulatory coordination and harmonisation impacts will be assessed thanks to the advantages and disadvantages identified for each option.

9.7.1. General considerations on the options

Option 0 — Do nothing

The 'do nothing' option means that the current version from 2008 of the EUROCONTROL Specification referenced in Regulation (EU) No 805/2011 remains in force. In the medium term this situation could be prejudicial to safety, as some of the training content becomes outdated. In addition, the lack of clarity on binding and non-binding status of the objectives in EUROCONTROL Specification establishes a non-harmonised provision of initial training and, therefore, creates the condition for a denial of the mutual recognition of licences. Furthermore,

no update of Regulation (EU) No 805/2011 would have no economic impact in the short term, but in the medium term this would create an inefficient framework for the management of the initial training contents as explained in the issue analysis.

Option 1 — Transposition of the EUROCONTROL Specification in the EU legislative framework

In order to meet the objectives as in Section 9.5 above, it is necessary to implement measures addressing the air traffic controller initial training courses within the EU legislative framework.

The definition of well-balanced requirements for air traffic controller initial training by a Regulation with the associated AMC and GM shall establish a clear division and an unambiguous understanding regarding the mandatory and non-mandatory contents transposed from the EUROCONTROL Specification into the EU legislation.

With option 1 the proposed transposition of initial training material of the EUROCONTROL Specification into the EU legislation is performed by placing subjects, subject objectives, topics and subtopics in Implementing Rules, specifically in Appendices 3 to 9, and objectives, taxonomy levels, mandatory and optional contents in AMC, one for each of the aforementioned appendices. Such arrangement of the initial training content establishes the required clarity and legal certainty as regards the binding and non-binding elements of the air traffic controller initial training.

With option 1 the layout of the content of initial training syllabi of the EUROCONTROL Specification will be kept; therefore, no adaptation will be required to a new layout and convention to read and implement the training material.

Incorporating the mandatory elements of an external document into Implementing Rules follows the EU principles of 'better regulation', namely to keep reference to external documents to the minimum and thus to ensure legal certainty with the measures concerned. With option 1 references to non-EU regulatory material (e.g. ICAO SARPs) are kept in the AMC and GM in order to ensure a high and uniform level of safety.

The methodology proposed for the transposition allows for a reactive and seamless update of the initial training contents, and in particular those included in the AMC, as they are published via an EASA Executive Director's Decision. In this case the EASA rulemaking procedure for amending and introducing updates is shorter than the procedure to be followed when amending an Implementing Rule. This solution permits the systematic and timely update of the technical content of initial training for the benefit of safety in air traffic control provision. The rulemaking procedure assesses also, amongst several aspects within its regulatory impact assessment, the relevant transitional period for the implementation of the new Implementing Rules.

Moreover, with option 1 the maintenance of both Implementing Rules and AMC, where necessary, shall not rely on the publication of a new edition of the EUROCONTROL Specification, but the whole process is maintained consistently within the EASA rulemaking process. By this way the consistency with EU safety objectives is fully ensured as there is no responsibility given to an independent organisation for the update of the rules.

According to Article 6 of the draft cover Regulation, an alternative means of compliance to an Implementing Rule, different from an AMC published with an EASA Decision, can be approved under certain conditions by the competent authority and applied by the proposer to fulfil a given rule. In this case EASA shall only be notified by the competent authority of the approval and of the contents of the alternative means of compliance.

As explained above, some of the technical contents of the EUROCONTROL Specification will be in AMC, meaning that at national or FAB level the competent authority could approve alternative means of compliance to what is prescribed in the AMC issued by EASA following the receipt of such proposals. The approval of an alternative means of compliance needs to be duly justified to the competent authority and shall meet the requirements established by the Basic

Regulation and the associated Implementing Rules. Based on the notifications received EASA will establish a database containing the alternative means of compliance approved by the competent authorities which will then be checked at regular intervals based on a risk assessment. Moreover, EASA will verify via standardisation inspections whether the process for the issue of the alternative means of compliance and its contents meets the applicable requirements.

The transposition of initial training content of the EUROCONTROL Specification within the EASA system contributes to the creation of the basis for standardisation inspections of the application of the EASA Basic Regulation and its Implementing Rules by the Member States, in this specific case as regards air traffic controller initial training.

The definition and the implementation of clear and common rules for air traffic controller initial training courses will ensure a solid basis for the recognition of licences and equal opportunities of mobility for licence holders throughout the EU Members States.

Conclusions for option 1

- With transposition, as proposed in option 1, the time to introduce updates to the initial training requirements can be reduced by amending the specific AMC or GM according to the EASA rulemaking procedure.
- The definition of a relevant transitional period for the updated rules is part of the EASA rulemaking process, which allows for transparent consultation and rule development.
- Stakeholders will benefit from the flexibility of the EASA Basic Regulation allowing for the use of AMC as well as for the creation of alternative means of compliance, if necessary.
- EASA standardisation activities will benefit from a legislative framework in line with rest EASA activities offering to ensure the same level of implementation in all Member States.
- Consistency with EU safety objectives is fully ensured during the update of the rules.
- With option 1 there is no change in comparison to the layout in use with the EUROCONTROL Specification.

Option 2 — Referencing the EUROCONTROL Specification in the EU legislative framework

Referencing the EUROCONTROL Specification is in line with the current legislative framework, as the latest published edition of this document is referenced in Regulation (EU) No 805/2011. Nevertheless, to address the issues in Section 9.1, the referencing has to be improved. There are two alternatives proposed with the options 2a 'Static referencing' and 2b 'Dynamic referencing'.

General aspects valid for both options are indicated first. They are followed by an assessment of the specific aspects of each option.

General

In particular cases binding obligations can be established in the EU legislation by referring to an external document. However, if the reference is not established to define in details which parts and content of the referenced document are binding, the uniform application of the intended provisions is at risk. On the other hand, in the absence of a detailed indication regarding the binding parts and content of the referenced document by a regulation, the entirety of the contents of the document is considered to be mandatory. Therefore, the choice of the methodology to be used to reference the EUROCONTROL Specification in the EU legislation should be carefully reconsidered.

The EUROCONTROL Specification is a document produced by an international organisation; its implementation, when included in the EU legislation by referencing, necessitates diverse measures to be taken by the Member States depending on their respective national legal

system. This may result in a non-uniform final implementation and application of the content of the referenced document.

With the adoption of option 2 the EU legislative machinery would not have the possibility to directly amend or complement the binding and non-binding provisions according to its rulemaking processes and procedures, including consultative methods, because the content of initial training referred to belongs to a document under the responsibility of a different organisation (in this case EUROCONTROL) which is outside the remit of EU legislative powers.

Moreover, the steps to be followed to produce, consult and publish a new version of the Specification would rely on the initiative, processes and resources of EUROCONTROL which are not necessarily aligned and consistent with the EU and EASA regulatory objectives, processes and deadlines.

With option 2 in consideration of the problems described above (uncertainty in the implementation of the appropriate edition of the EUROCONTROL Specification, need for additional national legal measures) there would not be a clear basis for standardisation inspections to verify compliance with the EASA Basic Regulation and its Implementing Rules. Furthermore, one should consider the differences that exist in the processes followed by the EU institutions and EUROCONTROL to establish, consult and publish the subject requirements.

With option 2 the layout of the EUROCONTROL Specification will remain the same unless EUROCONTROL decides to change it.

Conclusions valid for both options 2a and 2b

- Potential conflicts with safety objectives in different organisations: the EUROCONTROL Specification might be updated with non-harmonised safety objectives compared to those established by the EASA Basic Regulation.
- With option 2 the whole content of the EUROCONTROL Specification will be mandatory (with the exception of the so-called 'optional content' in the objectives); this establishes lack of flexibility in amending specific training content compared to option 1.
- Document layout: no change, subject to EUROCONTROL decision.

Option 2a — Static referencing

Following the issue of a new edition of the EUROCONTROL Specification, with option 2a the reference in force in the EU legislation would need to be amended following the steps established in the EASA rulemaking procedure (i.e. preparation and publication of a Notice of Proposed Amendment, consultation period, issue of a Comment-Response Document, preparation and publication of an Opinion) and the successive comitology procedure. This would take a considerable amount of time which would delay the update of the Implementing Rule and therefore favouring rigidity of the air traffic controller initial training provisions. It is to be recalled that in this case the minimum time to fulfil the EASA rulemaking procedure is one year.

Moreover, such additional time could create a situation where training organisations could tend to apply the new edition of the EUROCONTROL Specification even before its official legal enforcement resulting from the EASA rulemaking procedure. This would result in non-standardised initial training throughout training organisations.

It is to be noted that the EUROCONTROL Notice of Proposed Rule-Making process (ENPRM) is not formally recognised as a replacement of the consultation foreseen in the EASA rulemaking procedure; therefore, the content of the new edition of the EUROCONTROL Specification may need to be consulted within the EASA rulemaking process before it could be referenced within an amended Implementing Rule. In this case there is the risk that during the rulemaking process leading to the amendment of the Implementing Rule divergences with EUROCONTROL arise, for instance during the consultation process regarding the initial training content.

Conclusions for option 2a:

- Additional delay to update training requirements compared to option 1.
- Potential risk of non-standardised initial training provided by training organisations during the update phase.
- Potential different safety objectives between EUROCONTROL and EASA/EU may result in conflict during the EASA rulemaking process assessing the updated EUROCONTROL Specification. This could result in a new edition of the document with additional time required for the update.

Option 2b — Dynamic referencing

With option 2b the initial training content in the new edition of the EUROCONTROL Specification will become applicable without being subject to the EASA rulemaking procedure (NPA process, Opinion/Decision, comitology) and its alignment with the EU/EASA regulatory principles could not be ensured and verified. In other words, EU Member States shall completely rely on EUROCONTROL initiative, resources and decision-making processes.

The amount of time required to review, update and publish a new version of the EUROCONTROL Specification referenced as in option 2b could be similar to the time necessary to update the initial training content transposed in EU legislation, as in option 1. Nevertheless, one can notice that with option 1 the structure of the EASA rules (split between IRs and AMC) will enable to proceed with the update of specific content, where necessary; instead with option 2b the introduction of modifications to specific content would only be possible with the issue of a new edition of the EUROCONTROL Specification. Therefore, it is expected that with option 2b more time in average would be necessary to update the initial training requirements.

Moreover, if a formal adaptation or a transitional period is not provided to enable the introduction of the necessary changes and updates to the existing training plans, which is usually the case for dynamic references, any new edition of the EUROCONTROL Specification would be the regulatory reference as from the date of its publication. This lack of transition could represent an implementation problem and contribute to the fragmentation of initial training standards.

If with option 2b a transitional period would be foreseen in the Implementing Rule, it would be valid for any published edition of the EUROCONTROL Specification. The problem could be that the amount and the impact of changes introduced could vary significantly from one edition to another; the aforementioned transitional period could not always be adequate to allow the affected organisations and persons to implement the new initial training standards on time.

Even if EUROCONTROL has a process in place to define a suitable transitional period within each edition of the Specification, this may not fit with the EASA/EU safety objectives.

Additionally, there would not be the absolute certainty that training organisations concerned would simultaneously apply the same version of the EUROCONTROL Specification; consequently such situation would potentially favour the lack of harmonisation in the application of initial training provisions.

Conclusions for option 2b

- Potential conflicts with safety objectives in different organisations: the EUROCONTROL Specification might be updated in accordance with safety objectives not aligned to those pursued by the EU/EASA. With option 2b EASA/EU have no formal control over the update performed by EUROCONTROL.
- The amount of time necessary to update the EUROCONTROL Specification could be similar to that of option 1, but in average it should be a bit longer as the whole document needs to be re-issued (with option 1 only the relevant rule has to be updated).
- The transitional period to implement the new edition of the EUROCONTROL Specification could not be adequate for the EU Member States.

9.7.2. Summary of the general considerations

The general assessment of the identified options provided above is performed around the following characteristics:

- time to update the requirements;
- consistency with EU safety objectives;
- clarity for stakeholders;
- certainty on the right version of the requirements;
- flexibility to provide alternative means of compliance;
- transitional period for updated requirements;
- reference document layout.

Table 8 — Overview of the characteristics of the different options

Characteristics to assess options	Option 0 — Do nothing		Option 1 — Transposition in the EU legislative framework		Option 2a — Static referencing to EUROCONTROL Specification		Option 2b — Dynamic referencing to EUROCONTROL Specification	
Time to update the requirements.	–	Reference exists to the 2008 CCC version, but is now outdated.	+	Quickest legislative process to update initial training.	–	Additional time to update rules compared to option 1.	+/–	Potentially it could result in the same time as option 1.
Consistency with EU safety objectives.	–	Issue with interpretation of the requirements may lead to different national implementation.	+	Unambiguous initial training binding and non-binding contents: this ensures a common EU safety approach.	+/–	Potential lack of consistency with EU safety objectives would delay the adoption of the update. But EASA has a duty to accept EUROCONTROL update, so there is at least a consistency check with EU safety objectives.	–	Potential lack of consistency with EU safety objectives without EU in the loop for update and modifications.
Clarity for stakeholders (requirements in a single legislative framework).	–	Member States might create additional national rules.	+	Single and unambiguous regulatory framework will provide clarity for stakeholders.	–	The need to simultaneously refer to EU legislation and EUROCONTROL Specification may result being unclear and confusing to stakeholders.	–	The need to simultaneously refer to EU legislation and EUROCONTROL Specification may result being unclear and confusing to stakeholders.
Certainty on the right version of the requirements.	+	Already specified in Regulation (EU) No 805/2011.	+	Training requirements are published as EU legislation with dates for entry into force and transitional period.	+/–	The publication of a new edition of the EUROCONTROL Specification without the update of the EU legislation, where such document is referenced, may create misalignment of training content.	+/–	The publication of a new edition of the EUROCONTROL Specification without a clear definition of transitional periods and applicability date may create misalignment of training content.
Flexibility to provide alternative means of compliance.	–	Not applicable.	+	The EASA Basic Regulation offers the possibility for alternative means of compliance.	–	None of the content of the EUROCONTROL Specification is in AMC.	–	None of the content of the EUROCONTROL Specification is in AMC.
Transitional period for updated requirements.	0	Not applicable.	+	Provided within the rule and following the EASA rulemaking process.	+	The amendment to the relevant legislation adopting the new edition of the EUROCONTROL Specification will assess this transitional period.	–	Transitional period provided by the EUROCONTROL Specification could potentially be in conflict with what EASA would have proposed.

Characteristics to assess options	Option 0 — Do nothing		Option 1 — Transposition in the EU legislative framework		Option 2a — Static referencing to EUROCONTROL Specification		Option 2b — Dynamic referencing to EUROCONTROL Specification	
Reference document layout.	+	No change in layout: this continues to lead to different interpretation of the EUROCONTROL Specification currently in force.	+	The current layout of the EUROCONTROL Specification will be kept with the identification of requirements at IR and AMC level.	/+	Changes to the actual layout are dependent upon EUROCONTROL decision.	/+	Changes to the actual layout are dependent upon EUROCONTROL decision.
Overall	**–**		**+**		**–**		**–**	

9.7.3. Analysis per type of impact

Safety impact

The objectives are:

- to define and harmonise basic and rating training contents for air traffic controller initial training courses to ensure the adequate level of safety;
- to train student air traffic controllers so that their licence represents a common level of knowledge, understanding and skills.

Option 0:

No update of the current edition of the EUROCONTROL Specification would be prejudicial to safety in the medium term.

Option 1:

The update of technical content would be quicker and more effective than option 2 because the related consultation process will be conducted only once via the EASA rulemaking procedure and targeted to the introduction of changes to existing measures.

Conclusion: Option 1 ensures that the initial training content is updated at a pace meeting the safety objectives.

Option 2a:

To implement the update of technical content included in the new edition of the EUROCONTROL Specification it would be necessary to consult it twice: first with the EUROCONTROL process (ENPRM), and successively with the EASA rulemaking process. This double consultation is time-consuming and requires administrative duplication of efforts. In addition, there could be a potential risk of non-acceptance of the draft EUROCONTROL Specification if the EU/EASA safety objectives are not fully met and this could require additional consultation rounds.

Conclusion: Option 2a does not ensure that the initial training content is updated at a pace meeting the safety objectives.

Option 2b:

Once the update of the EUROCONTROL Specification is completed, the consultation process will take place together with the ENPRM process. If EU/EASA agrees with this new EUROCONTROL Specification, the time spent to update the rules is similar to that of option 1. Nevertheless, there could be a potential risk of non-acceptance of the EUROCONTROL Specification if the EU/EASA safety objectives are not fully met therein. This situation could lead to legal controversies; the extra time required to solve such controversies and to implement an agreed version could be prejudicial to safety (initial training in force out of date).

Transitional period provided by the EUROCONTROL Specification could potentially be in conflict with what EASA would have proposed and potentially lead to the use of different editions of the EUROCONTROL Specification by training organisations.

Conclusion: Option 2b does not ensure that the initial training content is updated at a pace meeting the safety objectives.

Conclusion for safety impacts:

	Option 0	***Option 1***	***Option 2a***	***Option 2b***
Safety impacts	**– – –**	**+**	**–**	**–**

Environmental impact

Not applicable.

Social impact

The objective is to ensure the mutual recognition of air traffic controller licences throughout the EU/EASA Member States and as a consequence support the mobility of air traffic controllers.

Option 0:

The lack of clarity on binding and non-binding status of the objectives in EUROCONTROL Specification establishes a non-harmonised provision of initial training and, therefore, creates concerns for the recognition of licences across the EU.

Option 1:

The clear and unambiguous definition of initial training content within the EU legislation establishes the basis for a common initial training standard and, therefore, supports the mutual recognition of air traffic controller licences throughout the EU/EASA Member States.

Option 2a:

Same as in option 1.

Option 2b:

There is a potential lack of consistency with EU safety objectives without EU in the loop for update and modifications of the EUROCONTROL Specification.

The possible misalignment of initial training content resulting from uncertainty in the edition of the EUROCONTROL Specification to be applied could create the conditions for differences in initial training content and, therefore, leave room for justification for a refusal of mutual recognition of licences.

Conclusion for social impacts:

	Option 0	***Option 1***	***Option 2a***	***Option 2b***
Social impacts	**–**	**+**	**+**	**+/–**

Economic impact

The objective is to have a cost-efficient process for the update of the rules.

It should be highlighted that the same amount of expertise and resources will be needed for options 1, 2a and 2b to ensure the review and the update of the initial training provisions at technical level, independently of whether it is transposed or referred to in the EU legislation. The difference is on administrative process leading to the implementation of the amendments in the EU legislation.

Option 0:

Not amending Regulation (EU) No 805/2011 would have no cost impact in the short term but in the medium term this would create an inefficient framework to manage the initial training contents as explained in the issue analysis.

Option 1:

The update of technical content would be quicker and cost-wise more effective than with option 2, because the related consultation process will be conducted only once via the EASA rulemaking procedure and targeted to the introduction of changes to existing measures.

Option 2a:

To implement the update of technical content included in the new edition of the EUROCONTROL Specification it would be necessary to consult it twice: first with the EUROCONTROL process (ENPRM), and successively with the EASA rulemaking process. This double consultation is time-consuming and requires administrative duplication of efforts. In addition, there could be a potential risk of non-acceptance of the draft EUROCONTROL Specification if the EASA safety objectives are not fully met and this could require additional consultation rounds.

Option 2b:

Once the update of the EUROCONTROL Specification is completed, the consultation process will take place together with the ENPRM process. If EU/EASA agree with this new EUROCONTROL Specification, the time spent to update the rules is similar to that of option 1. Nevertheless, there could be a potential risk of non-acceptance of the EUROCONTROL Specification if the EU/EASA safety objectives are not fully met therein. This situation could lead to legal controversies and therefore it would not result in a cost-efficient process.

Conclusion for economic impacts:

	Option 0	***Option 1***	***Option 2a***	***Option 2b***
Economic impacts	**–**	**+**	**–**	**+/–**

Proportionality issues

Not applicable.

Impact on regulatory coordination and harmonisation

Option 0:

Issue with interpretation of the requirements may lead to different national implementation.

Option 1:

Unambiguous initial training binding and non-binding contents: this ensures a common EU safety approach.

Option 2a:

Potential lack of consistency with EU safety objectives would delay the adoption of the update. EASA though has a duty to accept EUROCONTROL update, so there is at least a consistency check with EU safety objectives.

Option 2b:

Potential lack of consistency with EU safety objectives without EU institutions involved in the update and modifications.

Conclusion for impacts on regulatory coordination and harmonisation:

	Option 0	***Option 1***	***Option 2a***	***Option 2b***
Regulatory coordination and harmonisation	**–**	**+**	**+/–**	**–**

9.8 Conclusion and preferred option

Comparison of options

	Option 0 'Do nothing'	***Option 1 Transposition***	***Option 2a Static referencing to EUROCONTROL Specification***	***Option 2b Dynamic referencing to EUROCONTROL Specification***
Safety impacts	––	+	–	–
Social impacts	–	+	+	+/–
Economic impacts	–	+	–	+/–
Regulatory coordination and harmonisation	–	+	+/–	–
Overall	**–**	**+**	**–**	**–**

Conclusion

On the basis of the elements in the impact analysis contained in this document, option 1 is the preferred solution for the implementation of the requirements.

10 REQUIREMENTS FOR TRAINING ORGANISATIONS

10.1 What is the issue and the current regulatory framework?

As already stated in the Agency's Opinion No 03/3010, the first phase of the work that led to the adoption of Regulation (EU) No 805/2011 was not considered to be the final phase. Indeed this work was the basis for future work to be carried out by the Agency. The requirements contained in Chapter IV of Regulation (EU) No 805/2011 are a minimum set of requirements but do not provide for the necessary implementation level of the Basic Regulation or the necessary fulfilment of the obligations stemming from the Chicago Convection. The requirements do not implement all the essential requirements of the Basic Regulation and are not completely transposing the requirements applicable to training organisations contained in ICAO Annex 1 and the future ICAO Annex 19. Because of this, Member States are obliged to continue to develop their own provisions and guidelines for training organisations to be certified. This results in non-harmonised requirements for training organisations in contradiction to the objective of the Basic Regulation.

It is important to highlight that today's requirements do not distinguish between training organisations which are not directly affecting the safety of the aircraft and their occupants (e.g. training organisations providing initial training) and training organisations which may have a direct operational safety impact (e.g. training organisations providing on-the-job training (OJT), unit, and continuation training). While the general management system requirements will be the same for the two type of training organisations, the training organisation having direct operational safety impact can assess the safety of their operations/services and therefore can perform risk assessment and mitigation, while the management system of the training organisation which does not have direct operational safety impact will be more oriented to ensure the quality of their training/services. This concept is also promulgated in the standards of ICAO Annex 1 and draft ICAO Annex 19.

Moreover, it is also important to ensure, as far as it is practicable, some similarities with the requirements for training organisations in other fields of aviation while ensuring of course the need to maintain the specificities of the air traffic controller training organisations.

It is important to highlight that training organisations providing unit and continuation training need to be either air traffic service providers themselves or have an arrangement with the relevant air traffic service provider providing services in that airspace. Because of this, it is quite important to ensure that the requirements for management systems are as similar as possible between the training organisation and the air traffic service provider, providing of course the necessary proportionality and flexibility.

Last but not least, the Basic Regulation requires the establishment of common requirements on the conditions to obtain and maintain a training organisation certificate to provide air traffic controller training.

Summary of the issues:

- Continue the development of European common requirements for approved training organisations according to the Basic Regulation and started with Regulation (EU) No 805/2011.
- As far as it is practicable, ensure similarities for training organisation requirements in aviation activities.
- Ensure proportionality of the management system requirements per type of training organisation.
- Harmonise the transposition of ICAO Annex 1 and draft ICAO Annex 19 in the European regulatory framework.
- Harmonise the requirements to obtain and maintain a training organisation certificate providing air traffic controller training, which is a one of the conditions to provide sufficient grounds for the mobility of air traffic controllers.

10.2 Who is affected?

Air traffic controllers

As the issues analysed in this chapter concern air traffic controller training organisations from the perspective of the organisational requirements applicable to them, air traffic controllers themselves are not directly affected.

Training organisations

Based on information from EUROCONTROL Report on the SES Legislation Implementation, year 2011 **[4]**, there are approximately 120 certified training organisations. The majority of them (75 % approximately) is also air traffic service (ATS) providers or is part of an ATS unit.

Air navigation service providers

As already said, the proposal affects mainly training organisations. However, ATC units need to hold or have arrangements with a certified training organisation to provide unit and continuation training to their air traffic controllers.

Based on information from EUROCONTROL Report on the SES Legislation Implementation, year 2011 **[4]**, there are approximately 290 air navigation service providers. 30 % of these ANSPs provide ATS and are therefore potentially affected by the change.

Competent authorities

Based on the existing requirements of Regulation (EU) No 805/2011, the tasks of the competent authorities include already the certification and oversight of the training organisations. As the requirements in this Regulation are very general, competent authorities need in the majority of the cases to develop their own provisions for the training organisations and for their inspectors to facilitate the certification and oversight of the training organisation.

Therefore, the proposed provision could potentially impact the existing tasks and procedures within the competent authorities.

10.3 What are the safety risks?

Although there are no significant safety risks in the current situation (in relation with the requirements for training organisations), the main safety concern remains the different set of requirements for the same type of training organisations located in different Member States. This could lead to different means for managing safety, and it could eventually result in confusing situations that are usually the cause of the safety gaps in the aviation chain.

10.4 Objectives

The specific objective is to ensure an adequate set of rules to be compliant with the Basic Regulation by providing common rules for training organisations to obtain and maintain their training organisation certificate.

The fulfilment of this task needs to ensure harmonisation with the requirements for air navigation service providers and to allow for proportionality and flexibility (e.g. requirements for training organisations providing initial training versus training requirements for unit and continuation training).

10.5 Identification of options

To achieve the objectives in 10.4, the following options have been identified:

1. Option 0:

Do nothing. This option will leave the requirements as they are currently in Chapter IV of Regulation (EU) No 805/2011, and it will not solve the identified shortcomings in paragraph 10.1.

2. Option 1:

Provide only a set a AMC and GM to existing requirements of Regulation (EU) No 805/2011. This option will leave the requirements as they are currently in Chapter IV of Regulation (EU) No 805/2011, but will provide Acceptable Means of Compliance and Guidance Material to the existing requirements. It is important to highlight that in this option the Agency would only be able to develop Acceptable Means of Compliance and Guidance Material for the existing requirements and can not add additional requirements in the AMC or GM. Therefore, this option will still not solve all the shortcomings identified in paragraph 10.1.

3. Option 2:

Complement and complete the existing provisions and provide for a comprehensive set of AMC and GM. This option means that the requirements of Chapter IV of Regulation (EU) No 805/2011 need to be changed and completed. Based on this the Agency is able to develop the necessary AMC and GM to the new proposed requirements with the aim to solve the shortcoming identified in paragraph 10.1.

10.6 Analysis of impacts

Safety impact

As already explained in 10.3, the main identified safety risk is the lack of harmonisation of requirements between the training organisations and the ATC units in which the training organisation provides unit and continuation training. If these two organisations have different set of requirements leading to different procedures for managing safety, it could eventually result in confusing situations that are usually the cause of the safety gaps in the safety chain.

Although all the requirements cannot be identical because service provision and training are two different activities, the requirements should result in comparable ways of managing safety so as to be integrated or to coordinate closely.

With option 0 the current situation will continue, i.e. no change in safety risks which is currently extremely low.

Option 1 will bring few benefits with the AMC and GM which can be develop in this field.

Option 2 will bring the maximum of the benefits by providing the adequate IRs together with the necessary AMC and GM.

Conclusion for safety impacts:

	Option 0	***Option 1***	***Option 2***
Safety impacts	0	0/+	+

Environmental impact

Not applicable.

Social impact

Not applicable.

Economic impact

Level playing field

Option 0 and option 1 may have a negative impact because the different requirements for training organisations could penalise some training organisations and favour some others if the training requirements are not harmonised.

Option 2 has a positive economic impact because the harmonised requirements for training organisation providing similar services create a level playing field and fair competition between the training organisations in the different Member States.

Administrative costs

Option 0 and option 1 would not change today's situation and therefore they would not have any impact.

Option 2

The main economic impact with option 2 is the implementation of more detailed requirements for training organisations. The extend of the impact will depend on the differences between the requirements already implemented by the Member State and the proposed ones, but in general a negative impact could be foreseen at the beginning. This negative impact should be balanced with the long-term harmonisation of the requirements between the training organisations and the air navigation service providers and the long-term simplification for the competent authority.

Conclusion for economic impacts:

	Option 0	***Option 1***	***Option 2***
Economic impacts	–/0	–/+	+ (– : short term)

Proportionality issues

The main proportionality issue identified is the need to differentiate between training organisation which are not directly affecting the safety of the aircraft and their occupants (e.g. training organisations providing initial training) and training organisations which may have a direct operational safety impact (e.g. training organisations providing OJT, unit, and continuation training). While the general management system requirements will be the same for the two training organisations, the training organisation having direct operational safety impact can assess the safety of their operations/services and therefore can perform risk assessment and mitigation, while the management system of training organisation which does not have direct operational safety impact will be more oriented to ensure the quality of their training/services.

With option 0 and option 1 it is not possible to guarantee that this would be solved because it would depend on the complementary provisions developed by the Member States. Option 2 has a positive impact because this proportionality issue is identified and it is recognised.

Conclusion for proportionality issues:

	Option 0	***Option 1***	***Option 2***
Proportionality issues	0	0	+

Impact on regulatory coordination and harmonisation

The main impact on regulatory coordination and harmonisation is the lack of harmonised provisions for training organisations, the lack of alignment of the requirements between the training organisations and the air navigation service providers, and the lack of alignment whenever possible with the requirements for management systems applicable to other aviation organisations (e.g. training organisations for flight crew licensing as foreseen by ICAO with the draft ICAO Annex 19).

Option 0 and option 1 have a negative impact because of the lack of harmonised requirements, while option 2 will have a positive impact due to the proposed harmonised set of requirements. Moreover, option 2 is designed to ensure alignment with the relevant provisions in ICAO Annex 1 and the draft ICAO Annex 19 ensuring also alignment with the requirements for management system with other fields of aviation.

Conclusion for regulatory coordination and harmonisation:

	Option 0	***Option 1***	***Option 2***
Regulatory coordination and harmonisation	–	–	+

10.7 Conclusion and preferred option

Comparison of options

	Option 0	***Option 1***	***Option 2***
Safety impacts	0	0	+
Economic impacts	–	–/+	+ (– : short term)
Proportionality issues	0	0	+
Regulatory coordination and harmonisation	–	–	+
Total	–/0	–/0	+

Conclusion

Based on the analysis of the impacts, it can be concluded that option 2 is the preferred option and is the one proposed in the NPA. As already explained, the proposed harmonised set of requirements for training organisations will not only implement fully the Basic Regulation but will also provide the necessary basis to ensure harmonisation not only between the requirements applicable to training organisations but also between the training organisations and air navigation service providers. The proposal also provides for proportionality and flexibility by differentiating between training organisations that have direct operational safety impact and organisations with do not have a direct operational safety impact. This aspect is also recognised by ICAO Annex 1 and the draft Annex 19.

11 MEDICAL REQUIREMENTS — TRANSPOSITION OF EUROCONTROL CLASS 3 MEDICAL REQUIREMENTS

11.1 What is the issue and the current regulatory framework?

Current regulatory framework

Air traffic controllers play an important role in the achievement and maintenance of a high level of safety in aviation, and therefore they have to be medically fit to perform their duties. The main objective of medical certification is to prevent, as far as reasonably achievable, that an air traffic controller suffers a medical incapacitation while performing rated duties.

The rules for medical certification ensure that air traffic controllers undergo regular medical checks, and that the results are assessed with regard to aero-medical fitness by specifically trained physicians, i.e. the aero-medical examiners (AMEs). They issue a medical certificate for a defined period of time if a fit assessment has been made, or declare the air traffic controller as unfit to perform rated duties if a medical condition warrants that decision. In special cases, air traffic controllers who do not fully meet the medical rules may also be assessed as fit if the medical conclusion is that they can perform their rated duties safely. However, their medical certificate will normally be issued with a limitation.

The international standards for aero-medical certification are laid down in Annex 1 to the ICAO Convention (ICAO Annex 1). The present regulatory framework for the medical fitness of air traffic controllers in Europe is the 'EUROCONTROL Guidelines for the Requirements for European Class 3 Medical Certification of Air Traffic Controllers' (the EUROCONTROL Guidelines), deriving from Directive 2006/23/EC on a Community air traffic controller licence and subsequently Regulation (EU) 805/2011 laying down detailed rules for air traffic controllers' licences and certain certificates pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council. However, these legislative acts do not contain the applicable medical requirements themselves, but refer to the above-mentioned international

standards and EUROCONTROL Guidelines regarding the requirements. Following these references the medical requirements based on ICAO Annex 1, JAR-FCL 3 (Medical), and the EUROCONTROL Guidelines were implemented in the majority of the Member States.

The current version of the EUROCONTROL Guidelines has been reviewed by the ATCO Medical Requirements Task Force (AMRTF) under the responsibility of EUROCONTROL, taking into account that medical technology advanced over the years and that new treatments of medical conditions may allow a fit assessment in more cases than in the past. The document was ready for publication under the EUROCONTROL Notice of Proposed Rule-Making (ENPRM) process only shortly before the Basic Regulation[26] was amended to extend the scope of EASA to also cover aerodromes, ATM/ANS, and air traffic controllers. Consequently this ENPRM was not published.

What are the issues?

The Basic Regulation requires the Agency to propose draft Implementing Rules for the medical certification of air traffic controllers (Opinion), and to develop Acceptable Means of Compliance and Guidance Material in this field (Decision).

Gaps between the current rules and the Basic Regulation

Under the current rules aero-medical examiners (AMEs) are not given the full privileges, as laid down in the Basic Regulation, to issue initial medical certificates which is presently the privilege of the aero-medical section of the authority.

The current rules also need to be amended with regard to specific AME training, which is not sufficiently explained in the EUROCONTROL Guidelines.

In addition, authority requirements need to be added with regard to medical certification as well as approval of AMEs and aero-medical centres (AeMCs).

These missing elements lead to regulatory gaps that need to be covered in the European legislative framework to be in line with the Basic Regulation.

Conclusion: The current rules do not fully cover all the areas addressed by the Basic Regulation.

Common rules in Europe and level playing field

Common rules for medical certification aim at implementing the same standard of medical requirements throughout Europe to create a level playing field. This will ensure the acceptance of medical certificates in all Member States and will improve the possibility for mobility of air traffic controllers. Considering the aero-medical assessment these rules also aim at avoiding that air traffic controllers with a medical condition lose their job in one Member State because they are assessed as medically unfit to exercise the privileges of their licence, whereas colleagues with exactly the same condition can continue to work in another Member State due to a different assessment which may be made if the rules are not harmonised.

The medical assessment shall, as far as possible, provide the information whether or not an air traffic controller will be fit for the period of validity of his/her medical certificate. Medical examinations and tests, whose results lead to the conclusion of medical fitness or unfitness to perform the related duties, should also be the same in all Member States to avoid unnecessary

[26] Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing the European Aviation Safety Agency and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC, amended by Regulation (EC) No 1108/2009 of the European Parliament and of the Council of 21 October 2009 (OJ L 309, 24.11.2009, p. 51).

tests for reasons other than fitness for the duration of the validity of the medical certificate, e.g. to predict fitness in the distant future or to cover occupational health items.

Conclusion: A non-harmonised implementation of rules does not ensure a level playing field. This has negative social consequences if an air traffic controller is considered medically unfit in a country to exercise the privileges of his/her licence, whereas he/she could continue to work in another Member State due to a different assessment.

Synergies with pilot medical certification

The Aircrew Regulation[27] establishes the regulatory system for pilot licensing, medical certification of pilots, certification of AMEs and AeMCs, as well as authority and organisation requirements for aircrew. Annex IV (Part-MED) to this Regulation contains the rules for the medical fitness of pilots and certification of AMEs. The latter has to be taken into account when drafting the medical provisions for air traffic controllers considering the fact that some AMEs will examine both pilots and air traffic controllers. AMEs should therefore be subject to the same set of rules for both groups of aviation personnel concerning the structure of the rules, as well as regarding synergies in the content. The same applies to AeMCs where pilots and air traffic controllers will be assessed for their initial medical certificate, and the organisation requirements laid down in Annex VII (Part-ORA) to the same Regulation should therefore apply. Annex VI (Part-ARA) completes the set of rules for medical certification of pilots. Also synergies exist here as there may be competent authorities in Europe where oversight with regard to medical certification of pilots and air traffic controllers is performed by the same individuals.

Conclusion: For persons and organisations assessing both air traffic controllers and pilots there could be synergies by providing the same framework of rules.

Specific medical requirements

The medical provisions (Implementing Rules as well as Acceptable Means of Compliance and Guidance Material) should reflect the scientific and technical progress in medicine, including the development of more effective therapies and/or better understanding of the risks of specific conditions. This will allow individuals to embark on or continue with a career as air traffic controller even though they would have been assessed as medically unfit some years ago. Under the auspices of EUROCONTROL, ARMTF further developed the current EUROCONTROL Guidelines taking medical progress into account. The draft revised text was used as a basis for the proposed European set of rules.

However, the views of aero-medical specialists from organisations and competent authorities are very diverse with regard to the assessment of air traffic controllers with certain medical conditions, such as diabetes mellitus type 1, and also regarding the extent to which specific examinations and tests are needed to establish medical fitness. While physicians in some countries are educated to place main emphasis on the medical history of a person when judging their health, the opinion in other countries is that physical examinations and tests are needed to establish an opinion on medical fitness.

Conclusion: To ensure the acceptance of air traffic controller medical certificates at EU level, the update of the rules need to consider scientific and technical progress in medicine commonly shared by the aviation sector.

[27] Commission Regulation (EU) No 290/2012 of 30 March 2012 amending Regulation (EU) No 1178/2011 laying down technical requirements and administrative procedures related to aviation aircrew pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council (OJ L 100, 5.4.2012, p. 1).

Regulatory coordination and harmonisation

The current Regulation (EU) No 805/2011 leads to potential implementation issues with the inherited formulation in its Article 15(3):

'The issuing of medical certificates shall be consistent with the provisions of Annex I to the Chicago Convention on International Civil Aviation ***and*** *the Requirements for European Class 3 Medical Certification of Air Traffic Controllers laid down by EUROCONTROL.'*

There are already differences known between ICAO Annex I and these requirements from EUROCONTROL. This situation could potentially be more problematic in the future if differences continue to grow. Furthermore, the references used in the subject provision are without any further detail on the edition or publication date of the referenced requirements. This endangers legal certainty and poses implementation problems when it comes to ensuring a common legal basis applicable in Europe. Thirdly, as already detailed under the description of the current regulatory framework, the responsible expert group of EUROCONTROL envisaged the update of the current Guidelines. Although EASA has taken the results of the review undertaken by the AMRTF as a basis, it has no legal authority to amend those EUROCONTROL requirements. Based on the above reasons the current situation creates concerns on the implementation of the present Article 15(3) over the course of time.

Conclusion: Article 15(3) of the current Regulation (EU) No 805/2011 would not bring over the course of time sufficient clarity and efficiency in respect of the requirements to be used and would result in growing implementation problems with regard to the parallel application of both sets of requirements, i.e. EUROCONTROL Class 3 and ICAO Annex I.

11.2 Who is affected?

All air traffic controllers are affected. The Basic Regulation requires all air traffic controllers to undergo an aero-medical examination to obtain a medical certificate. The detailed rules on how to assess the medical fitness of air traffic controllers are currently implemented under national law.

Other affected parties are:

- aero-medical examiners (AMEs),
- aero-medical centres (AeMCs),
- competent authorities,
- EASA.

11.3 What are the safety risks?

The current rules for medical certification of air traffic controllers provide a high level of safety with regard to preventing, as far as reasonably achievable, a medical incapacitation of air traffic controllers while performing rated duties.

11.4 Summary of the issues

The following issues have been identified:

- The current rules do not cover all the areas addressed by the Basic Regulation.
- A non-harmonised implementation of rules does not ensure a level playing field. This has negative social consequences if an air traffic controller is considered medically unfit in a country to exercise the privileges of his/her licence, whereas he/she could continue to work in another Member State due to a different assessment.
- For persons and organisations assessing both air traffic controllers and pilots, there could be synergies by providing the same framework of rules.

- To ensure the acceptance of air traffic controller medical certificates at EU level, the update of the rules need to consider scientific and technical progress in medicine commonly shared by the aviation sector.
- There are implementation concerns with Article 15(3) of Regulation (EU) No 805/2011 on the regulatory coordination and harmonisation.

11.5 Objectives

The specific objectives of the proposal in the medical field are:

- to maintain a high uniform level of safety by ensuring that air traffic controllers are medically fit for their duties;
- to ensure that all areas addressed by the Basic Regulation are covered by appropriate rules;
- to create a level playing field;
- to facilitate the free movement of air traffic controllers;
- to ensure a smooth transition from the current rules to the future European standard.

11.6 Identification of options

Option 0 — Baseline option: Do nothing

With this option no there is no immediate regulatory intervention and the EUROCONTROL Guidelines would be maintained in Member States where these rules were implemented, while other Member States would continue with their national rules for medical fitness of air traffic controllers. Consequently no common set of rules will be created and the aim of a level playing field cannot be achieved. In addition, the Basic Regulation addresses areas which are not covered by the current EUROCONTROL Guidelines (see section 'Issue analysis'). Therefore, this option is only theoretical and is used as baseline scenario against which other scenarios will be evaluated.

In addition, the current implementation concerns identified with Article 15(3) of Regulation (EU) No 805/2011 on the regulatory coordination and harmonisation could potentially increase over the course of time.

Option 1 — Transpose the current system of medical certification of air traffic controllers into a common system to be included in the European legislative framework

The current regulatory framework (EUROCONTROL Guidelines) of medical certification of air traffic controllers has been well established in many Member States and provides for a high level of safety in that field. However, although these rules have been harmonised they do not provide a level playing field for air traffic controllers due to the fact that the competent authority is given the possibility to apply additional or more or less stringent provisions. In addition AMEs are not given the full privileges as laid down in the Basic Regulation, namely to issue initial medical certificates in AeMCs which is currently the privilege of the aero-medical section of the authority. The current rules also need to be amended with regard to AME training because neither the subjects to be covered nor the necessary hours of training are mentioned. Furthermore, the EUROCONTROL Guidelines do not provide authority requirements detailing the certification and oversight of AMEs and AeMCs. These missing elements lead to regulatory gaps when challenged against the rules in the Basic Regulation that are to be covered in the European legislative framework.

Option 1 proposes draft rules to mitigate these issues.

It affects different stakeholders as follows:

Aero-medical examiners (AMEs)

Aero-medical examinations and assessments of air traffic controllers are to be performed by AMEs. This is the case today under national rules and will not change under future European law. However, EUROCONTROL Guidelines do not regulate in detail the training courses for AMEs seeking the privilege to issue Class 3 medical certificates and their specific training is currently subject to national regulations. Pilots and air traffic controllers have to undergo aero-medical examinations, and the corresponding training in aviation medicine (which is the medical speciality applied for these assessments) should therefore be the same for AMes who issue medical certificates for Class 1 and/or Class 3.

In addition to an aero-medical assessment of air traffic controllers and pilots the AMEs have to take into account the respective working environment when determining the medical fitness of an applicant. The Aircrew Regulation provides a detailed curriculum for AME training in aviation medicine as well as on the working environment of pilots only, which is not sufficient for the medical assessment of air traffic controllers. This is why the curriculum should be amended to include training on the specific working environment of air traffic controllers. The training modules on the working environments could be interchangeable depending on the privileges the AMEs are aiming at. The impact on AMEs who currently issue Class 3 medical certificates is minimal as their privileges will be grandfathered.

Aero-medical centres (AeMCs)

The initial medical certificate is considered to be of a specifically high importance which is why under the current regulations it is normally issued by the aero-medical section of the authority, based on the results of the medical examination and assessment performed at an AeMC. In the future rules, this privilege to issue initial Class 3 medical certificates will be given to the AeMCs. The impact on the AeMCs will be minimal because initial examinations and assessments for Class 3 medical certificates are performed at AeMCs already under the current regulations, and some competent authorities also delegated the privilege to issue initial medical certificates to AeMCs. With the implementation of the Aircrew Regulation, AeMCs also issue initial Class 1 medical certificates for commercial pilots and the draft Opinion for medical certification of air traffic controllers reflects the Aircrew Regulation in this aspect.

AeMCs will be required to set up a quality management system. This will have only minimal impact because they are already required to do so under Regulation (EU) No 290/2012.

The aero-medical section of the competent authorities

Initial Class 3 medical certificates are currently issued by the aero-medical section (AMS) of the competent authority. The entity 'aero-medical section of the authority' is not mentioned in the Basic Regulation and is therefore not addressed in the rules for medical certification of air traffic controllers. Nevertheless, the competent authority will have to be organised in a way that guarantees medical competence to assess the fitness of air traffic controllers who were referred to the licensing authority by the AME or AeMC, administrative and legal competence to certify AMEs and AeMCs, and data protection of sensible medical data sent by AMEs, AeMCs, or by air traffic controllers. It is up to the competent authority to decide whether this is done by an AMS as part of a medical department by continuing to use the existing AMS, or otherwise, and the impact is therefore minimal.

The Basic Regulation gives the privilege of aero-medical certification to AMEs and AeMCs. This is a considerable change concerning the responsibility of the AMS in the competent authority which has more influence on aero-medical decision making under the current rules, indicated by the wording 'as acceptable to the AMS' in the legal text. This phrase has been deleted, wherever possible, to ensure that the rules will be applied in a harmonised way in all Member States and to medically assess all air traffic controllers as indicated in the rules.

EASA

EASA will need to review and amend the medical rules on a continuous basis as medical progress is made. In addition, more Guidance Material has to be drafted to support the application of the rules in a harmonised manner.

Option 2 — Create a new set of rules for medical certification of air traffic controllers taking into account that they are not working in the aircraft environment

The basic rule that the medical assessment of air traffic controllers has to be an aero-medical assessment could be abandoned taking into account that air traffic controllers are not working in the aircraft environment and are submitted to neither cabin pressure, temperature and humidity, nor to aircraft noise and vibration. The working conditions of air traffic controllers are very different from the work in an aircraft cockpit and therefore fitness to perform rated duties could be assessed according to specific occupational health standards. This would not involve AMEs in the assessment of medical fitness of air traffic controllers and the role of the competent authority would be minimal or non-existent.

11.7 Analysis of impacts

Safety impact

Technical content of the rules

Option 0

Option 0 would neither increase nor decrease the safety of air navigation as far as technical medical rules are concerned.

Option 1

The proposed future rules in option 1 are based on these EUROCONTROL Guidelines as reviewed for amendment, and on ICAO Annex 1. From the medical technical side there is no increased safety risk; however, some competent authorities may see a risk in their decreased influence on the application of the rules because no additional or more stringent rules can be required.

Option 2

Air traffic controllers have very specific tasks for the operational safety of aviation. In the case of option 2 the conduct of oversight of (occupational health) medical examiners by the competent authority could be difficult, the reason being that according to the Basic Regulation these physicians cannot be issued with a certificate that would entitle them to issue medical certificates for air traffic controllers. In addition occupational health experts may not be sufficiently familiar with the working environment of air traffic controllers; therefore, safety might decrease in option 2.

Acceptance of medical certificates in all Member States

Option 0

A common set of rules for medical certification and acceptance of medical certificates in all Member States may lead to air traffic controllers obtaining their medical certificate in a Member State other than the country where they hold their licence. Due to implementation of the current regulations under national law the medical requirements are not fully harmonised and mutual recognition or acceptance of licences and certificates in some countries may be difficult, if not impossible.

Option 1

Option 1 mitigates the risk mentioned in option 0 by the obligation of the AME to work according to common set of rules applicable in all Member States and to send the examination documentation to the authority where the air traffic controller holds his/her licence. The medical assessor of this authority will retain the full medical file of all air traffic controllers who have been licensed in this authority so that oversight is ensured.

Option 2

Physicians who are specialised in occupational health are working under national occupational health laws which are different in the Member States. It may therefore not be possible to implement a common set of rules for medical fitness of air traffic controllers.

Consistent medical requirements across the aviation sector and synergies with pilot medical certification

Option 0

The current system of medical certification of air traffic controllers has proven to be effective and efficient. However, as such it does not fully meet the criteria of European rules as laid down in the Basic Regulation and further detailed in the Aircrew Regulation with respect to AMEs, AeMCs, and competent authorities.

Option 1

For the reason mentioned above, considerate amendments to the structure of medical certification of air traffic controllers are needed taking also into account that in many cases AMEs and AeMCs as well as authorities involved in medical certification are the same persons who deal with the medical certification of pilots. Different requirements for these individuals regarding the system may have an impact on safety. In any case these rule changes should not result in a complete change of the working methods compared to the present situation.

Medical technical rules for air traffic controllers and pilots do differ due to the different working conditions of these groups of professionals; however, the structure of the current rules needs to be changed to support AMEs and AeMCs in their day-to-day work. Minimal changes to the current medical provisions are needed; any drastic changes should be avoided in this first issue of medical requirements also taking into account that the EUROCONTROL Guidelines have been discussed and amended recently by specialists in the field of aero-medical certification of air traffic controllers.

All these issues are mitigated with option 1.

Option 2

Creating a set of medical rules for air traffic controllers under an occupational health frame should not pose a safety risk. However, option 2 does not provide synergies with pilot medical certification.

Conclusions for safety impacts:

	Option 0	*Option 1*	*Option 2*
Technical content of the rules.	neutral	+	–
Acceptance of medical certificates in all Member States	–	+	+
Consistent medical requirements across the aviation sector and synergies with pilot medical certification.	–	+	–
Overall	**–**	**+**	**+/–**

Environmental impact

There is no environmental impact associated with the medical certification of air traffic controllers.

Social impact

Option 0

The current regulatory framework does not fully facilitate the free movement of air traffic controllers because the national implementation of the current rules may differ in Member States.

Option 1

Option 1 provides common medical provisions to allow air traffic controllers to apply for their medical certificate in any Member State: this will further promote their mobility as compared to option 0.

Option 2

For air traffic controllers the different systems of occupational health in Member States do not facilitate the free movement of air traffic controllers.

For AMEs, the activity of those who are not specialised in occupational health medicine would be reduced in proportion to the reduced number of aero-medical examinations and assessments of air traffic controllers. While option 2 would create only minimal social risk for AMEs because aero-medical examinations are normally only a small part of their work, it could create a significant impact on AeMCs where the number of jobs may be determined by the number of aero-medical examinations performed.

Conclusions for social impacts:

	Option 0	*Option 1*	*Option 2*
Overall	–	+	–

Economic impact

None of the options has a negative or positive economic impact on licence holders.

Options 0 and 1

Options 0 and 1 do not have a negative or positive impact on the administrative burden of the competent authorities or on AMEs and AeMCs.

Option 2

The administrative burden on the competent authorities with regard to medical certification of air traffic controllers would be significantly reduced because medical certification of air traffic controllers would be mainly under the responsibility of occupational health providers. This benefit will be offset by the corresponding amount of administrative processes to create a new structure with occupational health providers in order to replace the current one. The transition costs and the administrative burden to achieve a new stable framework exceed the benefits. Where pilots and air traffic controllers are licensed by the same authority two different systems for medical certification would have to be maintained.

The income of AMEs who are not specialised in occupational health medicine and of AeMCs who do not employ physicians specialised in this field would be reduced in proportion to the reduced number of aero-medical examinations and assessments of air traffic controllers. This loss of AMEs' income should be compensated by an increase of income for occupational health practitioners. Nevertheless, the loss of income for the AMEs who are not specialised in occupational health medicine could lead to termination of their activity.

Conclusions for economic impacts:

	Option 0	*Option 1*	*Option 2*
Administrative burden for aviation competent authorities	neutral	neutral	+
Administrative burden to create a new framework	neutral	neutral	–
Economic activity of AMEs	neutral	neutral	–
Economic activity of occupational health practitioners	neutral	neutral	+
Overall	**neutral**	**neutral**	**–**

Proportionality issues

Negligible. None of the options would adversely impact small and medium-sized service providers.

Impact on regulatory coordination and harmonisation

Option 0

As indicated in the issue analysis section, the implementation concern for Article 15(3) of Regulation (EU) No 805/2011 could potentially increase over the course of time.

Option 1 ensures an appropriate approach to be in line with ICAO Annex 1 as well as the updated EUROCONTROL requirements and eliminates the concerns formulated in the issue analysis section. It offers one clear set of rules, together with the necessary flexibility by using Acceptable Means of Compliance and Guidance Material, where necessary. The legal uncertainties arising from the twofold and undated references are also eliminated.

Option 2 would not comply with ICAO Annex 1 and would require a new legislative framework to allow certification of air traffic controllers by occupational health practitioners.

Conclusions on regulatory coordination and harmonisation:

	Option 0	*Option 1*	*Option 2*
Overall	–	+	–

11.8 Conclusion and preferred option

Comparison of options

	Option 0	*Option 1*	*Option 2*
Safety	–	+	+
Social	–	+	–
Economic	neutral	neutral	–
Regulatory coordination and harmonisation	–	+	–
Overall	**–**	**+**	**–**

Conclusion

Option 1 is the preferred one.

12 Summary of the conclusions

Overall impacts

The RIA provided justification for the preferred options with the following impacts:

Table 9 — Overview of the impacts of the preferred options per RIA issue

*Issues**	*Preferred option*	*Safety impacts*	*Social impacts*	*Economic Impacts*	*Proportionality impacts*	*Regulatory coordination & harmonisation impacts*
4. Change of the surveillance rating system	Option 2[28]: Integrated surveillance ratings	++	+	0	–	+
5. Oceanic control rating endorsement	Option 1: ACP-OCN pairing recognised at EU level	+	Not relevant	0	Not relevant	+
6. Unit endorsement validity	Option 2: Flexible system adapted to the diversity of air traffic control units	+	+	–/0	+	+
7. Language proficiency	Option 1: Revalidation of level 6 and ICAO transposition in EU legislation for language assessment bodies	+	+	–/0	Not relevant	+
8. Instructors and assessors	Option 1: New system for instructors and assessors	+	+	–	+	+
9. Initial training	Option 1: Transposition of EUROCONTROL Specification in EU legislation	+	+	+	+	+
10. Training organisations	Option 2: Comprehensive sets of AMC and MG	+	Not relevant	–/+	+	+
11. Medical requirements	Option 1: Transposition of EUROCONTROL requirements in EU legislation	+	+	0	Not relevant	+
Overall		**+**	**+**	**–/+**	**+**	**+**

** The numbering in this table refers to the RIA chapters.*

The draft rules will have a positive impact on safety, social, and regulatory harmonisation aspects. They will require adaptation from stakeholders, which will create additional activities

[28] The scores indicated in section 4.8 have been translated in '+/0/-' for an easier comparison with the other RIA issues.

during a certain period of time. To allow for sufficient time for preparing the necessary changes and to keep the potential burden induced by these changes to a minimum, an 18-month transition period for adaptation is proposed, followed by additional timeframes available for implementing the necessary changes (e.g. exchanging of the grandfathered licences according to the new template, or issue assessor endorsements according to the new requirements). Further details on the adaptation periods can be found in Articles 8 and 9 of the cover Regulation. Once implemented, the new rules will support a cost-efficient air traffic controller licensing scheme, as well as contribute to the overall efficiency of the air traffic control system is Europe.

By meeting the objectives set in Chapter 3 and the detailed Chapters 4 to 11, the overall impact is considered to be beneficial for the air traffic controller licensing activities.

Note: See Annex B, Table 10: Overview of the issues, objectives, options and impacts.

Stakeholders

- Air traffic controllers will benefit from:
  - more adequate ratings and endorsements (e.g. technology innovation followed by the surveillance rating system, oceanic control rating endorsement);
  - common training requirements, with clarifications on the level of the binding rules regarding initial training and a first set of common requirements for unit and continuation training;
  - EU level playing field in language proficiency assessment;
  - EU level playing field in medical assessment;
  - potential extension of professional life when their licences cannot be maintained anymore (e.g. for medical reasons): the requirements on instructors and assessors will allow them to continue to provide their experience for specific types of training;
  - common licence format: facilitating the mutual recognition of the privileges.

  ➔ Overall, the above will ensure the mutual recognition of their licences at EU level, support their mobility, and the acquisition of common competence across the EU Member States.
- Aero-medical examiners and centres will benefit from:
  - one clear set of requirements with the necessary flexibility via AMC and GM;
  - simple and straightforward implementation due to synergies with regard to the aviation professions and by providing the same framework for persons and organisations assessing both air traffic controllers and pilots.

  ➔ Overall, the above will enhance safety, level playing field, and cost-efficiency.
- Training organisation will benefit from:
  - common requirements at EU level on instructors and assessors;
  - level playing field thanks to common requirements at EU level on the management system of organisations;
  - flexible and proportionate requirements, e.g. for training organisations providing initial training only versus requirements for training organisations providing OJT, unit, and continuation training;
  - proportionate SMS requirements clarifying when interfaces shall be foreseen with other aviation domains;

- potential new employment resources: the NPA allows air traffic controllers facing licence withdrawal (e.g. due to medical reasons) to provide their experience for specific types of air traffic controller trainings.

➔ Overall, the above will ensure safety, level playing field, and cost-efficiency.

- Air navigation service providers will gain/benefit from:
  - potential employment shortage handled more easily thanks to higher mobility of air traffic controllers facilitated by the new rules;
  - quicker conversion when moving to another Member State due to uniform initial training and more harmonised unit training requirements;
  - the overall benefits of common requirements on training content and training organisation will ensure air traffic controllers with a common level of knowledge and skills supporting the management of the air traffic controllers daily activities.

  ➔ Overall, the above will enhance safety and cost-efficiency over time.
- Competent authorities will benefit from:
  - easier implementation and administration of the validity of the air traffic controller privileges (validity, revalidation, and renewal criteria established for all privileges, in addition correlation of the validity of the unit endorsement to the assessment of competence);
  - harmonised oversight requirements for air traffic controllers and training organisations, including harmonised oversight activities with FABs;
  - common approach for findings classification;
  - reducing administrative effort and time currently attributed to regulatory coordination and harmonisation with ICAO (EASA ensuring mainly this role);
  - synergies of these rules with other aviation domains according to the 'total system approach'.

  ➔ Overall, the above will enhance safety, oversight, and cost-efficiency over time.
- EASA will benefit from:
  - one set of common rules facilitating oversight and standardisation, and diminishing differences in interpretation;
  - requirements for non-European air traffic controllers and training organisations providing services within the EU, and ensuring an equivalent level of safety.
- Across stakeholders:

  ➔ The implementation of the total system approach with proportionate requirements will enable synergies.

  ➔ The 18-month period of transitional arrangements and the additional months for the necessary actions on the certificates, etc., are deemed to be sufficient to ensure a smooth transitional period.

Open issues

The remaining open issues from the Explanatory Note will be dealt with following receipt of stakeholders' input during the consultation period. Relevant RIA might be performed on a case-by-case basis.

Annex A: References

[1] SESAR P15.04.01 **D06 Application Case 1, 02.12.2011.**

[2] SESAR P15.04.01 **D07 Application Case 2, 24.11.2011.**

[3] SESAR P15.04.01 **D08 Application Case 3, 01.12.2011.**

[4] Report on the SES Legislation Implementation 2011, EUROCONTROL, 19-06-12.

[5] ATM Cost Effectiveness 2009 Benchmarking Report, EUROCONTROL Doc ACE 2009, June 2009.

Annex B: Overview of the issues, objectives, options and impacts

Table 10 — Overview of the issues, objectives, options and impacts

Issues (numbers refer to the RIA chapter)	**Objectives**	**Options** (preferred option **in bold**)	**Impacts**					
			Safety	Social	Eco-nomic	Propo-rtionality	Regu-latory	Total
4. CHANGE OF THE SURVEILLANCE RATING SYSTEM								
The issue is to consider if it is more appropriate to integrate training on technological specificities into the rating training rather than keeping it in separate rating endorsements based: • on the developments in surveillance technology: in a fully integrated surveillance environment the surveillance technology used is less important than the result of the data processing in a surveillance data processing system, and • on the need for changes in the EU system of ratings and rating endorsements: the current rating endorsement structure where RAD and ADS are individual endorsements that can be assigned independently is not considered 'future-proof' and sufficient, firstly as ADS seems to be used in addition to, not instead of, the RAD rating endorsement, and secondly due to emerging surveillance technologies, notably multilateration.	• Maintain the current high level of safety in a changing technological environment, and • Disconnect the licensing scheme from surveillance technologies to accommodate technological progress and limit the necessary adjustments thereto.	Option 0[29] (see issues)	–	–	0	0	0	–
		Option 1: Technology specific rating endorsements • Is based on the current structure with APS and ACS rating accompanied by RAD and/or ADS rating endorsement. • Requires a new MLAT rating endorsement used in parallel with RAD and ADS rating endorsement (to be repeated for each new surveillance technology). • Results in the multiplication of rating endorsements (APS/RAD + ADS + MLAT or ACS/RAD + ADS + MLAT).	+	+	0	0	0	0/+
		Option 2: Integrated surveillance ratings • Integrates all technology specific aspects of the surveillance infrastructure into the rating training. • No additional technology specific rating endorsements required. • No further separate surveillance-related rating endorsements issued.	**++**	**+**	**0**	**–**	**+**	**+**

[29] The scores indicated in section 4.8 have been translated in '+/0/–' for an easier comparison with the other RIA issues.

Issues (numbers refer to the RIA chapter)	Objectives	Options (preferred option **in bold**)	Impacts					
			Safety	Social	Eco-nomic	Propo-rtionality	Regu-latory	Total
5. OCEANIC CONTROL RATING ENDORSEMENT								
The issue is that under the current EU regulatory framework only the area control surveillance rating (ACS) can be accompanied by the oceanic control rating endorsement (OCN). Attaching the OCN rating endorsement to the area control procedural rating (ACP) is only possible via national rules, even though oceanic control is being exercised in combination with procedural area control in several Member States.	• Ensure smooth transition from OCN attached as national rating endorsement to the ACP rating to common European requirements. • Ensure recognition of air traffic controller licences at EU level, thus facilitating their mobility.	Option 0 (see issues)	–	n.r	–	n.r	–	–
		Option 1: Establish the possibility of ACP–OCN pairing recognised at EU level. • Explicit provision allowing such pairing, which is then included in the European air traffic controller licence accordingly. • Holders of this rating endorsement will also benefit from EU-wide recognition of their privileges.	**+**	n.r	**0**	n.r	**+**	**+**
6. VALIDITY OF THE UNIT ENDORSEMENT								
The issue is the current discrepancy and lack of clarity resulting from the fact that checking competence of air traffic controllers is not a mandatory criterion for the revalidation of the unit endorsement, as • Article 12 of Regulation (EU) No 805/2011 defines 12 months as the validity of a unit endorsement, • while the competence of the air traffic controller shall be assessed at least once every three years, as required by Part C of Annex II to the same Regulation.	• Correlate the frequency of the assessments with the validity of the unit endorsements, thus ensuring a clear link between the prolongation of the privileges and the ongoing capacity to meet those challenges. • Facilitate administration.	Option 0 (see issues)	–	–	0	+	0	–
		Option 1: Reduce the frequency of the assessment to the 12-month validity of the unit endorsement.	+	–/+	––	––	–/+	–
		Option 2: Establish a flexible system that can be adapted to the diversity of the air traffic control units.	**+**	**+**	**–/0**	**+**	**+**	**+**

Issues (numbers refer to the RIA chapter)	Objectives	Options (preferred option **in bold**)	Impacts					
			Safety	Social	Eco-nomic	Propo-rtionality	Regu-latory	Total
7. ASSESSMENT OF LANGUAGE PROFICIENCY								
The issue is to ensure the harmonisation of language assessments to a greater extent, as well as to safeguard the continuous maintenance of language skills at all proficiency levels. These specific gaps were identified: • despite the existing guidance at ICAO level on the criteria applicable to language assessment bodies; at European level no detailed expectations have been formulated so far in relation to these organisations; • currently there is no validity attached to the language proficiency expert level (level 6); however, experience shows that language erosion affects all proficiency levels, although to a different level and intensity.	• Limit the safety risks originating from the lack of requirements applicable to the assessment of language proficiency. • Eliminate the possibility of maintaining expert level proficiency based on eventually inadequate assessments. • Establish means to detect and mitigate possible language erosion.	Option 0 (see issues)	–	–	0	n.r	–	–
		Option 1: • Establish a validity period for expert level language proficiency (level 6) and require revalidation at intervals higher in proportion compared to lower proficiency levels. • Incorporate relevant ICAO requirements into EU legislation with regard to language assessment bodies.	**+**	**+**	**–/0**	**n.r**	**+**	**+**
8. INSTRUCTORS AND ASSESSORS								
• Lack of current requirements to implement the Basic Regulation in the field of persons responsible for providing practical training or for assessing air traffic controllers' skills, and • the diversity of national requirements for instructors and assessors create concerns on the recognition of these privileges at EU level and may prevent air traffic controllers mobility.	• Create adequate and proportionate rules for the qualification and certification of these personnel. • Establish common European categories for these personnel. • Provide for the necessary flexibility for specific cases.	Option 0 (see issues)	–	–	0	0	0	–/0
		Option 1: Elaborate a new system for instructors and assessors.	**+**	**+**	**–**	**+**	**+**	**+**

Issues (numbers refer to the RIA chapter)	Objectives	Options (preferred option **in bold**)	Impacts					
			Safety	Social	Eco-nomic	Propo-rtionality	Regu-latory	Total
9. APPROACH TO INITIAL TRAINING — TRANSPOSITION OF THE COMMON CORE CONTENT								
• Recognition of student air traffic controller licences across the EU Member States without creating social mobility concerns for air traffic controllers. • Allowing a flexible approach to the necessary updates of the technical content relevant to initial training while maintaining the long-term standardisation of initial training by a clear differentiation between binding and non-binding material. • Requirements relevant to the establishment of training courses, including performance objectives and examinations and assessments of applicants. • A uniform interpretation of the training objectives to reduce safety concerns as well as to establish harmonisation.	• Harmonise contents of air traffic controllers initial training courses to ensure a uniform high level of safety. • Train student air traffic controllers so that their licence represents common knowledge and skills. • Establish clear European rules addressing air traffic controller initial training to enable mutual recognition of licences. • Allow flexibility in training with a clear separation of binding and non-binding provisions. • Establish a system allowing the timely review and update of the initial training content.	Option 0 (see issues)	––	–	–	n.r	–	–
		Option 1: Transposition Transposition of EUROCONTROL Specification into the EU legislation.	**+**	**+**	**+**	**n.r**	**+**	**+**
		Option 2: Referencing 2a) Static referencing The implementing measures refer to a specific edition of the EUROCONTROL Specification. Each new version requests the amendment of the existing implementing measures following the EASA Rulemaking Procedure and the comitology procedure (time-consuming).	–	+	–	n.r	–/+	–
		2b) Dynamic referencing The implementing measures will refer only to 'EUROCONTROL Specification', this meaning its latest published edition. Such solution creates concerns related to legal certainty and reliability.	–	–/+	–/+	n.r	–	–

10. REQUIREMENTS FOR TRAINING ORGANISATIONS								
• Continue further the development of European common requirements started with Regulation (EU) No 805/2011 and required by the Basic Regulation. • As far as practicable ensure similarities for training organisation requirements in aviation activities. • Ensure proportionality of the management system requirements per type of training organisation. • Harmonise the transposition of ICAO Annex 1 and draft Annex 19 in the EU regulatory framework. • Harmonise the requirements to obtain and maintain a training organisation certificate providing air traffic controller training (one of the conditions to provide sufficient grounds for air traffic controllers mobility).	• Establish harmonised and complete requirements for training organisations to obtain and maintain their certificate. • Ensure harmonisation with requirements for air navigation service providers and allowing for proportionality and flexibility (e.g. requirements for organisations providing initial training versus requirements for unit and continuation training).	Option 0 (see issues)	0	n.r	–	0	–	–/0
		Option 1: Provide only AMC and GM related to Reg. (EU) No 805/2011 The Agency is only able to develop AMC/GM for the existing requirements and cannot add additional ones in the AMC or GM. Gaps therefore remain within the Basic Regulation.	0	n.r	–/0	0	–	–/0
		Option 2: Comprehensive set of AMC and GM Following the completion of the requirements of Chapter IV of Regulation (EU) No 805/2011 the Agency is able to develop AMC and GM to the necessary extent.	**+**	**n.r**	**0/+**	**+**	**+**	**+**

12. MEDICAL REQUIREMENTS								
• The current rules do not cover all the areas addressed by the Basic Regulation and do not provide for legal clarity and certainty as regards the applicable requirements. • A non-harmonised implementation of rules does not ensure a level playing field and has negative social consequences if an air traffic controller is considered medically unfit in a country to exercise the privileges of his/her licence, whereas he/she could continue to work in another Member State following a different assessment. • Synergies by providing the same framework could exist for persons and organisations assessing both air traffic controllers and pilots. • The update of the rules need to consider scientific and technical progress in medicine commonly shared by the aviation sector.	• Maintain a high uniform level of safety by ensuring that air traffic controllers are medically fit for their duties. • Ensure that all areas addressed by the Basic Regulation are covered by appropriate rules. • Create a level playing field. • Facilitate the free movement of air traffic controllers. • Ensure a smooth transition from the current rules to the future European standard.	Option 0 (see issues)	–	–	0	n.r	–	–
		Option 1: Transpose the current system of medical certification of air traffic controllers into a common system to be included in the European legislative framework.	**+**	**+**	**0**	**n.r**	**+**	**+**
		Option 2: Create a new set of rules for medical certification of air traffic controllers taking into account that they are not working in the aircraft environment.	+	–	–	n.r	–	–