



**OPINION No 1/2008**

**OF THE EUROPEAN AVIATION SAFETY AGENCY**

**of 15 April 2008**

**for amending Regulation (EC) No 216/2008 of the European Parliament and of the Council 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**

**“Extension of the EASA system to the regulation of Air Traffic Management and Air Navigation Services (ATM/ANS)”**

## I. General

1. When adopting Regulation (EC) No 1592/2002<sup>1</sup> of the European Parliament and of the Council on common rules in the field of civil aviation and establishing a European Aviation Safety Agency (Basic Regulation), the Community legislator invited the Commission<sup>2</sup> to make as soon as possible appropriate proposals to extend its scope to air operations and flight crew licensing. The Community legislator also anticipated the future application of the Basic Regulation and the development of essential requirements (ERs) for any other area related to civil aviation safety, on the basis of subsequent legislative proposals<sup>3</sup>. Therefore the Commission, when presenting its proposal for the first extension of the competences of the European Aviation Safety Agency (EASA) to air operations, flight crew licensing and safety of third country aircraft, also announced<sup>4</sup> its intention to progressively extend such competences, in the perspective of a "total system approach", to aerodrome/airport safety and interoperability, Air Navigation Services (ANS) and Air Traffic Management (ATM).
2. The Basic Regulation<sup>5</sup> defines, as one of the Agency's tasks, the provision to the Commission of the necessary technical support, as well as the development and adoption of Opinions on which the Commission bases its own legislative proposals concerning safety of civil aviation<sup>6</sup>. The present Opinion has been developed on such a basis. The Agency therefore herewith submits to the Commission its Opinion which purports to fulfil the commitments included in Communication COM(2005) 578 final of 15 November 2005 as far as ATM/ANS safety regulation is concerned.
3. This Opinion has been adopted following the procedure defined by the Agency's Management Board<sup>7</sup>, in accordance with the provisions of Article 19 of the Basic Regulation. However, the Commission's legislative agenda required that the Agency reduced the consultation and response periods specified in that procedure.
4. This Opinion is composed by the present memorandum, which explains the views of the Agency on the policy underpinning the safety regulation of ATM/ANS at Community level and which suggests the content of amendments to be made to the Basic Regulation to implement the said proposed policy. To this Opinion are attached a new Annex to the Basic Regulation containing the essential requirements (ERs) for ATM/ANS safety and interoperability and a Regulatory Impact Assessment (RIA).

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<sup>1</sup> Regulation (EC) No 1592/2002 of the European Parliament and of the Council of 15 July 2002 on common rules in the field of civil aviation and establishing the European Aviation Safety Agency (OJ L 240, 7.09.2002, p. 1.), as replaced by 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 (text with EEA relevance) (OJ L 079, 19.03.2008, p. 1).

<sup>2</sup> Article 7 of Regulation (EC) No 1592/2002.

<sup>3</sup> Recitals 2 and 23 of Regulation (EC) No 1592/2002.

<sup>4</sup> Communication COM(2005) 578 final of 15 November 2005 from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – "Extending the tasks of the European Aviation Safety Agency: an agenda for 2010".

<sup>5</sup> Henceforth the term "Basic Regulation" is referring to the recently adopted Regulation 216/2008 as mentioned in footnote number 1.

<sup>6</sup> Article 19(1) of the Basic Regulation.

<sup>7</sup> Decision of the Management Board concerning the procedure to be applied by the Agency for the issuing of Opinions, Certifications Specifications and Guidance Material ("Rulemaking Procedure"), MB/08/2007, of 13 June 2007.

## II. Consultation

### a. Notice of Proposed Amendment (NPA) 2007-16

5. A consultation document (NPA 2007-16)<sup>8</sup> was published on the Agency's web site on 30 November 2007 to propose an approach to incorporating ATM/ANS into the EASA system.
6. In this consultation document, the Agency explained the institutional framework established by the Basic Regulation for the regulation of other aspects of civil aviation safety, which would also apply to ATM/ANS, if the envisaged extension were adopted by the legislator. In this context, the Agency presented draft Essential Requirements (ERs), which shall both define the safety objectives imposed by the legislator and provide for the transposition of the ICAO obligations of Member States at Community level. Such ERs constitute thereafter the basis for detailed implementing rules that will reflect in a more detailed manner the obligations of regulated persons, taking into account also the applicable ICAO Standards and Recommended Practices (SARPS).
7. The NPA also presented Agency's suggestions on basic principles for the regulation of safety in ATM/ANS. For this purpose, it also asked the opinion of stakeholders on a number of questions for which it needed inputs to define a sufficiently consensual policy on which it would build the present Opinion.

### b. Comment Response Document (CRD)

8. The NPA attracted considerable interest by stakeholders and, by the closing date of 21 January 2008, the Agency had received 1 860 comments from national authorities, professional organisations and private companies. All comments received have been acknowledged and incorporated into a CRD, which was published on the Agency's web site on 18 March 2008. That CRD contains a list of all persons and/or organisations that have provided comments and answers to the Agency's questions.
9. These results allowed the conclusion that the consultation provided a sound basis for the Agency to prepare the subsequent deliverables of its rulemaking process. It was also evident that the comments as a whole reflected a strong consensus for the total system approach for safety regulation covering all fields of aviation and thus supported the principle of using the EASA system to achieve this. The CRD presents, therefore, the initial conclusions of the Agency, based on the consultation, on how the draft essential requirements should be amended and how the basic principles for the safety regulation of ATM/ANS should be set up in the extended Basic Regulation. These initial conclusions were then to be finalised by this Opinion.
10. Nevertheless, the consultation pointed out that many stakeholders were confused by the approach proposed by the NPA, as they thought that the safety regulatory role of the Agency would have been embedded in the Single European Sky (SES) regulations, instead of transferring the whole ATM/ANS safety regulation to the EASA system. Moreover, answers to the questions related to the regulatory or service provision nature of the adoption of the concepts of operations, as well as the management of airspace and air traffic flows, did not provide for sufficient clarity to allow the Agency to draw conclusions at that stage of the process. Therefore, and in order to support its final Opinion, the Agency undertook to further assess possible alternatives in the regulatory impact assessment, which shall accompany its opinions.

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<sup>8</sup> [http://www.easa.europa.eu/ws\\_prod/r/doc/NPA/NPA%202007-16.pdf](http://www.easa.europa.eu/ws_prod/r/doc/NPA/NPA%202007-16.pdf)

### c. Reactions to CRD

11. The Agency has received 100 reactions from 18 stakeholders: ten authorities, four professional associations, three service providers and one representative of the industry. This represents a bit less than 20% of the stakeholders that had originally replied to the NPA; this number reflects the usual reaction rate to Agency's CRDs. Most of them were about clarifying the comments made on the NPA when it was thought that they had been misunderstood. The Agency has analysed whether such misinterpretations were of a nature to change provisional conclusions presented in the CRD and, whenever it was the case, this has been taken into account in the present Opinion. In the same way, some reactions proposed improvements to the draft ERs, which the Agency welcomed and used to improve its final draft as attached. Several reactions asked the Agency to be clearer in its Opinion about certain aspects of its proposals. In particular this is the case for reactions from some professional organisations, which insist on the safety criticality of their members' functions. This has been done as much as possible in this document and its attachments.
12. Many stakeholders also expressed again their frustration for the reduced consultation period and for the short time available for analysing the quite extensive CRD document. The Agency can only emphasize again that the tight time table aimed at helping the Commission in meeting its own legislative agenda. It also insists on the fact that the objective of the envisaged action is only to transfer certain aspects of ATM/ANS regulation from the SES to the EASA framework; it follows a wide and open debate that led to the conclusion that such an action was supported by a clear majority of stakeholders. In this context, as emphasized in the NPA and the CRD, it is the intention to provide for a smooth transition, making use of the established rules and processes developed in the SES framework; as this will be done by means of the Community legislative procedures and the Agency's rulemaking process, stakeholders will have ample opportunities to verify that this is actually what happens, both for the amendment of the Basic Regulation and the adoption of its implementing rules.
13. Some stakeholders also made general remarks on the fact that the amount of comments classified as 'noted' by the Agency was very large and wondered whether this implied that the Agency would not take them into account when preparing its Opinion. In this respect the Agency would like to clarify that it used the response "noted" to mean that it considered the comment as not being of such a nature to affect the scope or content of the envisaged opinion. "Noted" therefore neither means that the Agency agrees or disagrees with the comment, but only that it does not see a conflict between what it envisages to do and what the comment suggests.
14. Few reactions finally show that there are misunderstandings on what a regulatory function is. One stakeholder in particular says that ATFM is a regulatory function and should therefore be regulated. To avoid any confusion, the Agency considers it useful to clarify that it sees a regulatory task as one that relates to the exercise of public powers and therefore cannot be entrusted to service providers; and that such regulatory tasks must therefore be carried out by public entities under conditions set by the legislator when defining their delegated powers. As a consequence, these bodies are regulators, not regulated persons.
15. To conclude, the Agency, taking into account the comments received to the NPA and the reactions to its CRD, has issued the present Opinion, which it considers reflects a majority view as regards the conditions under which the safety and certain aspects of interoperability of ATM/ANS shall be regulated under the EASA system, in close coordination with, and building on, the SES framework.

### III. Content of the Opinion of the Agency

#### General

16. The Agency's NPA assumed, based on its understanding of the recommendations of the High Level Group on the future of aviation regulation established by the Commission's Vice-President Barrot and of the conclusions of the impact assessment presented in the Commission's Communication referred to in paragraph 2 above, that the extension of the EASA system to the safety regulation of ATM/ANS was to be done using the EASA system as established by the Basic Regulation and further described in that NPA. This means that the total system approach would apply to safety regulation rather than to ATM/ANS regulation. In that context, the total system approach to safety has to be understood as meaning that all elements of the aviation safety chain are to be analysed in a centralised manner, in particular interfaces, so as to specify to each player in the safety chain what mitigating measures they need to implement to reduce not only their own contribution to the risks, but also the overall level of exposure. It is a fact indeed that the addition of safe behaviours is not in itself sufficient to provide an overall safe system.
17. This constitutes certainly a significant departure from the logic underpinning the Single European Sky concept, which addresses simultaneously the various aspects of regulation; as a consequence, capacity, economic performance, interoperability of ATM/ANS systems and constituents, air/ground interoperability, safety, environmental protection and other aspects of regulation are intimately mixed in both the applicable rules and the certification processes. This vision of the total system approach reflects the traditional practice in this domain, where until recently even service provision and regulatory functions were considered as the two sides of the same coin. It primarily aims at supporting a total system approach for improving the overall performance of the ATM system, in particular as regards capacity and economic performance. This also presents some advantages, as it allows covering under a single approval all regulatory obligations of the regulated persons, as if the air carrier licensing was covering all together safety, financial/insurance obligations and designation.
18. However, the SES approach presents some drawbacks, as it is unclear how arbitration between safety and other objectives is done; for that reason it is now widely accepted that safety regulation should be separated from economic performance regulation; the High Level Group recommendation 1 recalls this principle: "... and ensuring that safety regulatory activities are conducted independently from other forms of regulation." It also can be seen as an obstacle to the unbundling of eligible components of the ATM system as it makes the end service provider of air traffic control services the ultimate decider of the safety level in the airspace where it exercises its monopoly. Such reasons, *inter alia*, explain why this approach was not retained in the other fields of aviation regulation, which evolved over time in the direction of the total system approach to safety that underpins the EASA system. This creates then inconsistencies with the regulatory system applicable to the other players in the ATM safety chain, such as the airspace users, including pilots and operators, and the on board equipment manufacturers, whose compliance with many ATM requirements (equipage, procedures, ground/board interoperability, equipment performance...) is enforced using the EASA system, as required by the ICAO principle that places responsibility on the State of registry. It can, therefore, as identified in the context of the SES, lead to double regulation when such ICAO principles are not respected.
19. To make progress in this discussion, the Agency has analysed the pros and cons of both options in the regulatory impact assessment that it must provide in support of its opinions. The conclusion, as per Attachment 2, supports the extension of the EASA system as the best solution in terms of safety and regulatory efficiency; it is indeed

the cheapest and the most appropriate for limiting certification to safety aspects, as recommended by the High Level Group on the future of aviation regulation in Europe. In addition, its low social impact can easily be mitigated.

20. This choice has of course consequences on the need to properly articulate the extended Basic Regulation and its future implementing rules with the SES regulations and their implementing rules. It would indeed increase the difficulties of the industry if it were to comply with safety requirements under both systems stemming from double rulemaking processes. In the present state of play it is nevertheless not possible to identify precisely those provisions of the SES regulations that would have to be amended when the extended Basic Regulation enters into force, as well as those affected by its implementing rules. Moreover, the Agency is not entitled to make proposals as regards the SES regulations. A proper coordination will then have to take place in due time to elaborate the necessary adjustments. A flexible option would be that the legislator delegate powers to the Commission to make these necessary adjustments on a case-by-case basis. Another option would be that the review of the impact of the adoption of the extended Basic Regulation be done at the end of the legislature in order to specify in its penultimate article the provisions of the SES that need to be repealed or amended.
21. In this context the Agency recalls its repeated affirmation that any future EASA implementing rules will be built on the basis of the then existing provisions of the SES, in particular the transposed ESARRs. In this respect, transitional mechanisms will be designed in order to provide for the continuity of approvals already granted under the SES rules. There are many examples of such grandfathering in the transition from national to the EASA rules that provided for a smooth transition without additional burden for the industry. At the same time consistency between the EASA and SES systems will have to be provided for, taking into account the recommendations of the Double Regulation Ad-Hoc Group<sup>9</sup>. It is possible indeed to devise processes that provide for harmonised requirements and certification procedures in order to avoid multiple compliance assessments. The Agency is currently working on streamlining the organisation approvals in the context of the extension of the EASA system to air operations and the implementation of the ICAO SMS SARPS; this work will be used when developing the future implementing rules for aerodrome and ATM/ANS providers.

### **Safety objectives**

22. As explained in the NPA, Community legislation shall specify the objectives that the legislator wants to achieve through common action at Community level. This clarifies what the regulated persons and the executive authorities must do to comply with their obligations and provides the necessary tools for political and judicial control of their acts. Experience has shown in the other domains of aviation that the transposition by reference to ICAO SARPS was not providing a satisfactory solution as they were initially designed to provide for the free movements of air space users. They mix therefore safety and other - interoperability and administrative - requirements in a way that does not allow a performance based approach to safety regulation. As a consequence, the Agency is of the opinion that dedicated safety ERs must be adopted by the legislator as an additional annex to the Basic Regulation.

### Content of the Essential Requirements

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<sup>9</sup> <http://www.eurocontrol.int/src/gallery/content/public/documents/DRAHG/DRAHG%20Report.pdf>

23. The NPA proposed draft essential requirements, which were elaborated by the Agency following the standard process used in all other preceding cases. With the help of experts in the domain, the Agency identified the hazards linked with the provision of ATM and ANS; then assessed the related risks; and finally developed the mitigation strategies, which constitute the proposed ERs. These ERs are also intended to provide an appropriate basis to specify implementing means, guaranteeing consistency and continuity with existing SES regulations and implementing rules. As in previous cases, the NPA did not present the details of that process, but the related data can be provided to support the legislative process as appropriate. Comments received during the consultation have been used to improve the content of the ERs as much as possible in the short time allocated to the Agency to provide this opinion. The resulting text is presented in Appendix 1, together with explanations of their content, as well as their link with ICAO SARPS.

#### Nature of the concept of operation

24. In principle, and because the Basic Regulation is directly applicable in its entirety, essential requirements create rights for, and obligations on, regulated persons. They should, therefore, not include provisions that are addressed to the delegated executive bodies, Commission and Member States. A better way to do so is to place appropriate conditions on the exercise of these delegated powers in the articles of the Basic Regulations which are granting them. Such is the reason why the Agency, after identifying hazards linked with the establishment of the concepts of operations, asked whether their adoption was a regulatory or a service provision function. The answers received showed some uncertainty regarding the definition of the concepts of operations and some divergence of views concerning the very nature of the related function. The Agency therefore undertook to study this issue further in the regulatory impact assessment that must accompany its Opinions. The results of that assessment led to the following conclusions.
25. The most commonly agreed definition is that a concept of operations is a combination of procedures to be implemented by airspace users (ranging from simple "rules of the air" in very low density airspace to very complex combinations of procedures in complex airspace), ground and on board equipment requirements, services to be provided and used (including air traffic control, aeronautical information, meteorological data, communication, navigation, surveillance, etc.), procedures to be implemented by the providers of these services and personnel qualification. There must be a dedicated concept of operations underpinning the use of any block of airspace; there can be several concepts of operations applying in the same; in such a case, a tactical management of that block of airspace must be established to decide on the applicable concept of operations on a case-by-case basis, and to notify airspace users of which one applies at any time. A concept of operations is therefore not the result of research activities leading to potential options for increasing airspace capacity; it is a formal decision affecting operations in a dedicated block of airspace. As a consequence, the Agency considers that this concept should not be confused with the deliverables of SESAR, as seems to be the case when reading some of the comments received.
26. The objectives to be met by a concept of operations include not only safety, but also economic efficiency, environmental protection and any other criteria that a legislator can set to satisfy public expectations. As a consequence, the decision implies arbitration between conflicting objectives and can therefore not be left to parties with vested interests. Therefore, the adoption of the concepts of operations must be done under delegated executive powers; and it is a regulatory function. The exercise of that function needs to be coordinated at the ICAO and Community level to provide for overall consistency and interoperability from both the airspace users and service providers points of view. As a consequence, the Agency concluded that it is not

necessary to set essential requirements for the definition of dedicated concepts of operations. However, because the competent authorities in charge (regardless of whether this would be the Commission or the national authorities) must verify that such concepts of operations take safety appropriately into account, the Agency is of the opinion that the requirements it envisaged in the NPA's attachment to mitigate the related hazards must be put in the Article of the Basic Regulation where the conditions for the delegation of such powers are defined. It must be clarified in this context that the Agency does not intend to have any executive powers in this domain; it considers, however, that it should play the role of technical adviser for the evaluation of the safety impact of envisaged concepts of operations, as well as changes thereto; it also considers necessary that its standardisation inspection process is used to oversee how national competent authorities exercise their delegated powers in that field.

27. When adopted, dedicated concepts of operations are implemented by means of rules, which apply to the airspace users, personnel and the service providers, as well as to the equipments, systems and constituents they must use. Taking into account the current ICAO framework, these rules, which mainly address interoperability from the airspace users' point of view, are enforced on their operators by the States of registry; they shall therefore be adopted under the EASA system. As regards personnel and service providers, these rules mainly address interoperability from the service providers' point of view, as well as the related procedures and training requirements. Because their safety content is usually marginal, they are likely to be adopted under the SES framework, unless decided differently on a case by case basis by the Commission under its delegated executive powers, when the safety dimension justifies it. Such rules may, as appropriate, define what delegated roles are given to service providers for the implementation and tactical adaptation of the concepts of operations they shall apply.

## **Scope and applicability**

### Airspace

28. As stated in the NPA, regulating ATM/ANS through the Basic Regulation requires that the airspace in which common rules apply be clearly defined in its scope. The Agency is of the opinion that, in addition to the airspace in which the SES regulations apply, safety regulation of air traffic under the EASA system must cover as well the whole airspace in which the Treaty applies<sup>10</sup>. This allows including both controlled and uncontrolled airspace, since safety objectives necessarily cover a different scope than capacity management. Safety of air traffic in uncontrolled airspace is provided for by the rules of the air contained in ICAO Annex 2<sup>11</sup> that are similar to rules used to ensure the safety of road traffic. This will bring the benefit of harmonising those applicable rules of the air related to safety, which currently vary from State to State, constituting therefore a real safety threat by lack of interoperability from an airspace users' point of view. As already stated in the CRD, this does not imply in any way that the Agency intends to be involved in deciding what is or is not controlled airspace; such decisions are to be done as part of the definition of the concepts of operations, as explained here above.
29. In this context, the Agency wants to recall that some air navigation services, such as the chain of aeronautical information provision, as well as communication and

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<sup>10</sup> This excludes of course the airspace over high seas controlled by Member States under ICAO delegation.

<sup>11</sup> It is recognised that all elements contained in ICAO Annex 2 are not directly related to air safety and therefore will not be covered by the EASA system.



navigation services, are frequently available in uncontrolled airspace and can even be a condition for a safe and orderly flow of traffic; it is legitimate that such services be also subject to common safety requirements.

#### Airspace users

30. As explained in the above section related to the concept of operations, air operators are required to comply with the applicable dedicated concepts of operations in the airspace they use at a given time. This implies equipage and training requirements, as well as obligations to use certain services and to implement prescribed procedures. The EASA system already includes the related provisions, consistent with the provisions of ICAO Annex 6. Therefore, the Agency is of the opinion that ATM/ANS safety regulation of airspace users is better regulated under that system. This does not imply any changes to the Basic Regulation, whose article on applicability already covers operations into, within or out of the Community with aircraft registered in a Member State or in a third country. This will, in addition, provide the SES framework with the enforcement means enshrined in the Basic Regulation.
31. In that context it might be opportune to recall that the Basic Regulation only excludes from its scope the aircraft involved in so called "state missions" (police, customs, military and similar services). This implies, conversely, that aircraft owned by the States are subject to the common rules it prescribes when they are not engaged in such missions. In other words, they are subject to the same rules as air space users when operating as general air traffic. Like other categories of users, they have the right to contribute to the development of rules affecting them and to require that such rules are proportionate to the type and nature of their activity. Special treatment, when justified, shall be addressed when adopting the concepts of operations or developing the rules. Possible exemptions shall be handled using the applicable procedures, in particular those specified by Article 14 of the Basic Regulation.

#### Service providers

32. The risk assessment conducted by the Agency identified that the provision of ATM/ANS involves significant risks, which need to be appropriately mitigated. It is indeed already universally accepted that ATM/ANS providers shall be subject to common safety requirements and the SES regulations have established the related certification requirements. The NPA concluded therefore that providers of such services must be subject to common rules under the EASA system.
33. When touching upon this issue, it might be appropriate to clarify that the Treaty does not allow differentiating between undertakings on the basis of their ownership. This implies that service providers owned by States, including military administrations, may not be treated differently to any other organisation, private or corporatised, providing the same services. As explained in paragraph 31, special treatment or exemptions shall be handled in accordance with the applicable procedures.
34. To provide for legal certainty, the Agency also tried to identify more precisely the affected services. While it was clear that the providers of air traffic services, communication, navigation, surveillance, meteorological data and aeronautical information services, which are already in some cases private or corporatised bodies, should be treated as regulated persons, this was less clear for providers involved in air space management (ASM) and air traffic flow management (ATFM). The SES package, although containing these latter two functions in its scope, does not establish common (or essential) requirements for their provision, nor imposes any obligation for their certification; it is indeed questionable whether such functions are service provision or regulatory actions. The Agency asked therefore the opinion of stakeholders before making its own mind.

35. The answers received indicated that these functions embrace both regulatory and service provision aspects, by virtue of the presence of strategic, pre-tactical and tactical elements. The Agency undertook then to further analyse the answers received and to conduct an impact assessment of the possible options in the regulatory impact assessment (RIA) that must accompany its final Opinion. Its conclusions are that ASM, which means temporarily allocating previously designed airspace blocks or routes to specific civil or military users, is better considered a governmental function, with positive safety and economic implications. Equally, since ATFM may impose commercial damages to individual entities (e.g. delayed flights, rerouted flights or provision of greater capacity at a given time), the RIA concludes that it is better to consider it as a regulatory function, at least when it comes to its central function.
36. On this basis, the Agency concludes that the strategic or central elements of these functions, which in many aspects are close to the nature of the concept of operations, are of a regulatory nature and should therefore be decided by delegated competent authorities, the European Commission or regional/local competent authorities, as appropriate to take into account the necessary subsidiarity. Consequently, the related safety requirements shall be introduced in the conditions for such delegation. It also concludes that ASM and ATFM tactical elements may be handled by service providers, inasmuch as this does not entail conflicts of interests and the competent authority so decides. As a consequence, it is necessary to impose on such service providers the appropriate essential requirements.
37. In summary, the Agency is of the opinion that any organisation involved in the provisions of ATM/ANS services, as defined in the SES framework, shall be subject to common safety rules.

#### Systems and constituents

38. The risk assessment conducted by the Agency identified that the design, maintenance and functioning of systems and constituents contributing to ATM/ANS service provision involves significant risks, which need to be appropriately mitigated. This is acknowledged by ICAO SARPS and the SES regulations, which establish certification requirements. The Agency concludes, therefore, that such systems and constituents must be subject to common rules under the EASA system. However, to avoid over-regulation, the need for regulation should be identified on a case-by-case-basis when developing the necessary implementing rules. When such a decision would be taken, the principle of proportionality would be tested by conducting a regulatory impact assessment.

#### Personnel

39. Member States have already accepted, through their ICAO commitments and then subsequently under SES regulations, that air traffic controllers<sup>12</sup> must be subject to common requirements for theoretical knowledge, practical skill, language proficiency and medical fitness. Such requirements aim at ensuring not only that they have undergone the necessary training, which is a requirement for all professions, but also that they have the appropriate physical/medical fitness and sufficient current practice. The need to meet such requirements, which limit the freedom of those individuals to exercise that profession and can even force them out of their employment when they do not meet them anymore, lead the Agency to conclude that this personnel belongs to a regulated profession and shall therefore be subject to the extended Basic Regulation. The Agency would also wish to further clarify that it does not see reason to include personnel responsible for aerodrome apron management into such

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<sup>12</sup> Directive 2006/23/EC of the European Parliament and of the Council, of 5 April 2006 on a Community air traffic controller licence (Text with EEA relevance) (OJ L 114, 27.4.2006, p.22).

regulated profession, contrary to what was suggested by some stakeholders in the NPA consultation.

40. When developing its essential requirements, the Agency has certainly identified the need for other categories of personnel to comply with appropriate training and competence requirements, but not to the point that would lead to regulating their profession to the same degree as that of air traffic controllers. It concludes, therefore, that other personnel, such as the ATS engineering personnel, must be subject to common safety requirements and therefore be referred to in the extended Basic Regulation. Compliance with requirements related to professional competence and medical fitness shall, however, be the normal responsibility of the organisations employing them. The affected personnel are those whose activities may affect the safety of air operations through their involvement in the provision of ATM/ANS services, as well as in the design, manufacture, maintenance and operation of the related systems and constituents.

### Organisations

41. When developing the essential requirements, the Agency identified safety risks related to the design, manufacture, maintenance and operation of systems and constituents of the European Air traffic Management Network (EATMN). Although it is widely accepted that mitigation of these risks shall ultimately be the responsibility of the service providers using such systems or constituents, this does not alleviate that of the organisations that are directly involved in their design, manufacture, maintenance and operational tasks. The Agency is therefore of the opinion that these organisations shall be referred to in the extended Basic Regulation and may be required to demonstrate their capability, as appropriate, when so decided in the implementing rules based on proper regulatory impact assessment.
42. This does not imply that such organisations should systematically be directly regulated in order to relieve the responsibility of systems and constituents' users. However, this would provide the legal basis to permit doing so when appropriate. This is likely to be the case for GNSS systems and complex satellite/ground communication networks. This could also apply to some value added aeronautical information services, in particular electronic navigation data bases, for which there is currently no legal basis allowing their regulation. As explained also in the Opinion on aerodrome safety regulation, this would allow applying processes that have demonstrated their efficiency for decades in the field of airworthiness, similar to the ETSO (European Technical Standard Order) system used for aircraft parts, thereby facilitating the work of small service providers and reducing costs for constituents that can be standardised. Last, but not least, this would allow devising streamlined certification processes for ground/on-board systems and constituents.

### **Implementation means**

43. This chapter deals with the means to be used to implement the essential requirements. It details how compliance with the essential requirements should be demonstrated; clarifies which implementing rules should be issued by the Commission to specify what the regulated persons must do to comply; and identifies which bodies should be responsible to oversee and/or certify such compliance. The reasons for these clarifications are further detailed in the NPA.

### Airspace users

44. The Basic Regulation already establishes a basis for imposing requirements for airspace use on all air operators, whether they are EU citizens or not. Consistent with ICAO principles, such rules are indeed generally imposed through operational rules adopted by the State of registry or the State of operator to reflect the concepts of

operations adopted by the other Contracting States for use of their airspace. It has also been decided by the legislator that foreign operators will have to comply with Community requirements when in the airspace of Member States; this gives an opportunity to impose on them the necessary rules to comply with airspace requirements.

45. Rules requiring air operators to implement appropriate mitigating measures for their own operations fall under the EASA system and are therefore already covered by the Basic Regulation. The additional elements cover the implementation for the concepts of operations and interoperability from an air space users' point of view; they shall be developed by the Agency to comply with the concepts of operations decided under the SES framework and incorporated into the rules applicable to air operators by a Commission decision taken under the comitology procedure. The Commission must thus be given the necessary powers by the extended Basic Regulation.
46. Such rules will prescribe the procedures to be implemented by air operators in the airspace they use, as well as the equipment and the services they must use in that block of airspace. Such rules will have to be proportionate to the type and complexity of operation and the related risks. Consistent with the EASA system, their adoption will require proper consultation and impact assessment.
47. These rules will have to clarify also those areas of subsidiarity where Member States may have to develop additional rules to address local peculiarities. In such case, they would be entitled to issue their own local prescriptions, subject to Community control verifying their consistency with the overall concept of operations.
48. Under the EASA system, verification of compliance with the above rules is achieved by means of a certification process (issuance of a certificate or an attestation) only for commercial operators. This may be insufficient as regards compliance with ATM/ANS requirements that have to be met by non commercial operators, such as for example the carriage of the necessary equipment for Reduced Vertical Separation Minima and the ability of the crew to operate in such an environment. Therefore, additional certification requirements will need to be included in the extended Basic Regulation.
49. The competent authorities for implementing the operational rules are the National Aviation Authorities, where it concerns operators residing<sup>13</sup> in their territory, and the Agency, for the foreign operators. For the sake of simplicity and in order to avoid confusions as well as possible loop-holes, the Agency is of the opinion that the same sharing of roles shall apply for the verification of compliance with the rules envisaged in the previous paragraph.

#### Service providers

50. The situation of ATM/ANS service providers is in many ways very similar to that of commercial air carriers. To provide their services they need both to demonstrate compliance with safety requirements and obtain an authorisation (designation or selection by the competent air traffic service provider). While the first obligation aims at ensuring that providers have the means to fulfil their safety responsibilities, the second one is more about market regulation. Both processes can be disconnected, but no one can provide services without complying with both sets of conditions. While financial fitness is seen in the air transport world as a condition for market access, so as to protect consumers in case of accident or bankruptcy, it seems to have been

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<sup>13</sup> In this context, residing shall be understood as meaning the normal residence for a natural person or the principal place of business for a legal person.

seen as a condition for fulfilling safety obligations in the SES framework. From this the Agency draws the conclusion that the rules applicable to the approval of service providers should fall under the EASA system, as they primarily aim at mitigating safety risks, while authorisation should remain regulated by the SES system or at national level, as appropriate. The related rules should be adopted by the Commission under the comitology procedure. The Commission must then be given the necessary powers by the extended Basic Regulation.

51. As explained at several occasions, it is evident that such EASA rules must be elaborated on the basis of the existing elements developed so far under the SES and that appropriate transitional arrangements, including grandfathering of current approvals, shall be established to organise a seamless transition. Consistent with the EASA system, their adoption will require proper consultation and impact assessment. When entering into force, these rules should lead to the repeal of the related provisions under the SES framework in order to avoid double regulation. The necessary powers shall be given to the Commission to amend accordingly the SES regulations and their implementing rules, as referred above in paragraph 20.
52. According to the current SES provisions, compliance verification shall be made by means of a certification. The Agency agrees with that approach. In line with already established SES principles and its own work on better regulation, it also considers that multiple certifications must be avoided so that a service provider can provide several services under a single approval and a single management system; it is its intention to extend this principle also to the provision of aerodrome and ATM/ANS services to reduce the regulatory costs. However, the Agency considers a fully fledged certification process as disproportionate for less safety sensitive services, such as flight information (FIS) and aerodrome apron management. It is therefore of the opinion that FIS and apron management shall only be required to declare their compliance with the applicable safety requirements and the related implementing rules.
53. Consistent with the principles underpinning the EASA system, the competent authorities responsible for issuing the above mentioned certificates shall be the National Authorities, as regards operators residing in their territory, and the Agency for foreign organisations providing services in the European airspace.
54. However, some certification tasks can be better executed centrally for reasons of uniformity or of efficiency, in particular in domains requiring a rare expertise. This might be the case for ATM/ANS services covering several Member States, e.g. in the field of aeronautical information and navigation or communication networks; SESAR developments are likely to lead to building more pan-European services. It could then be questionable to require the Member State in which the service provider has its principal place of business to be the only competent authority. The Agency is therefore of the opinion that it shall be given the power to certify and oversee service providers providing their services in more than three Member States. This will exclude simple cross-border ATS provision and should not affect functional blocks of airspace inasmuch as such blocks do not imply that services in there are provided by a single provider.

#### Systems and constituents

55. As already stated above, the Agency is of the opinion that ATM/ANS systems and constituents, as defined in the SES Regulations, must be subject to common safety requirements. It seems moreover that the current SES framework lacks clarity as regards the requirements that such systems and constituents must fulfil; it does not specify in particular against which criteria the declarations (verification of systems and conformity or suitability for use of constituents) shall be issued. It considers

therefore necessary that further implementing rules are issued under the EASA system to provide the concerned designers, manufacturers, maintenance organisations and operators with the necessary legal certainty. Such rules will only address the safety and air/ground interoperability requirements. They shall, therefore, be complemented by the appropriate performance and ground/ground interoperability requirements. The latter requirements derive from the concept of operations and shall be issued by the respective responsible organisations, be they the Commission, the national competent authority or the air traffic service provider itself.

56. As regards now compliance verification with the essential requirements and the related implementing rules, the Agency acknowledges the processes put in place by the SES regulations and does not intend to suggest changing them for the sake of change. The self declaration of compliance, possibly supported by verifications by notified bodies, is a well established process under the Community global approach to certification. However, to avoid confusion with the term of qualified entity used with another meaning in the EASA system, the Agency considers necessary to establish such bodies in the Basic Regulation, including their privileges, and to specify in there the conditions for their accreditation.
57. Moreover, as explained in paragraph 42, it might be useful in the future to envisage dedicated certification schemes for some systems and constituents in order to facilitate the establishment of integrated certification schemes for those encompassing both ground and board elements. Such a possibility could also be used to support the development of standardised systems and constituents, similar to the ETSO articles. Finally, it might be a way to alleviate the responsibility of systems and constituents users as regards complex elements for which verification expertise is scarce. This would not imply that such a separate certification would completely waive user's responsibility, as it would remain for them to set the operational specifications and to provide for their integration. The Agency is therefore of the opinion that a legal basis must be established in the extended Basic Regulation to allow such certifications when appropriate. Decisions thereon would be done on a case-by-case basis when adopting the related implementing rules, following proper consultation and regulatory impact assessment.
58. In any case, notwithstanding whether systems and constituents would be subject to self declaration or dedicated certification schemes, care shall be taken when developing implementing rules and conformity assessments procedures to avoid overlap or duplication of regulatory processes. The necessary coordination shall be organised by the Commission as it will be the final decider in these fields.

#### Personnel

59. As already stated in the paragraph 39 of this document, it has been agreed by law that air traffic controllers must hold a license and appropriate ratings attesting compliance with safety provisions. A directive has already been adopted to this effect. To be consistent with the EASA system, such a directive should be transferred in the form of a Commission regulation, so as to provide for the common uniform level of safety required by the Basic Regulation, instead of the minimum safety level established through Community directives<sup>14</sup>. This also presents the advantage that the ensuing rule can be adjusted at executive level, avoiding lengthy legislative processes. It is clear, therefore, that powers need to be given to the Commission to adopt the related implementing rule.

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<sup>14</sup> It must be recalled that directives are legislative tools used to provide for approximation of national practices by imposing minimum standards. When adopting the Basic Regulation the legislator considered that such an approach was not sufficient to address the needs of the internal aviation market and decided to privilege common standards uniformly enforced in all Member States.

60. When it comes to the verification of compliance, the Agency agrees that the best option is to continue with the existing licensing scheme. Consistent with the sharing of roles established in the EASA system, competent authorities nominated at national level should remain in charge of the issuance of such licences.
61. As regards other personnel involved in the provision of ATM/ANS services, paragraph 40 concludes that service providers must ensure that personnel assigned to safety sensitive functions, such as engineering, power supply, system control and monitoring in real time, aeronautical information, and release to service of constituents maintenance, have the necessary competence and receive proper professional initial and recurrent training. The related requirements shall therefore be enshrined in the rules to be adopted for the implementation of the extended Basic Regulation. This can be done as part of the implementing rules applicable to the service providers or maintenance organisations themselves, if it is considered appropriate to leave compliance verification to the employers. This can also be done through dedicated rules if it were envisaged to establish specific certification schemes for some of these personnel. The Agency is of course aware of the on-going debate about licensing in this field; however, it considers it as being of a social rather than of a safety nature and would be inclined to leave it to the legislator to decide.

#### Organisations

62. It is already established by law that an organisation involved in the training of air traffic controllers must be certified. The related conditions are included in the Directive on Community air traffic controller licenses. For the reasons explained here above, the Agency is of the opinion that the related requirements must be transferred into an Agency implementing rule and that the related powers be given to the Commission. When developing such rules, the Agency considers that such certification should give privileges to these organisations to organise examinations themselves and to issue attestations of compliance on the basis of which licences can be issued by the competent authorities, as this is currently the case for maintenance training organisations under the EASA system.
63. As explained in paragraphs 41 and 42, it might be appropriate to regulate certain organisations involved in the design, manufacture, maintenance or operation of ATM/ANS systems and constituents. Such decision should be made on a case-by-case when adopting the related implementing rules. The necessary powers must therefore be given to the Commission.
64. Consistent with the sharing of roles established in the EASA system, the competent authority for certifying an air traffic controllers' training organisation or an organisation involved in the design, manufacture, maintenance or operation of ATM/ANS systems and constituents must be that of the Member State of principal place of business of such an organisation, or the Agency in the case of a foreign organisation.

#### **IV. Subsidiarity**

65. The Basic Regulation adopted in 2002 transferred competences from the Member States to the Community in the field of airworthiness and environmental certification, with the main objective of maintaining a high uniform level of civil aviation safety. Its first extension to air operations, flight crew licensing and third country aircraft, has been adopted on 20 February 2008<sup>15</sup>. The legislator has also anticipated its

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<sup>15</sup> Regulation (EC) No 216/2008 (Basic Regulation)

progressive extension to all other fields related to the regulation of civil aviation safety in order to provide for the total system approach to aviation safety, which is the only means to avoid safety gaps and inconsistent, potentially conflicting, requirements.

66. The idea that a high and uniform level of safety in air traffic management and the provision of air navigation services could only be attained through common action at the Pan-European level is not new and European States have started long ago to work jointly within EUROCONTROL, with the objective of creating common rules in this field. However, as already acknowledged when establishing the EASA system, no such voluntary intergovernmental approach can achieve the intended uniformity. As a consequence, a first step towards a truly centralised system with decision powers under the aegis of the Community has been done when adopting the Single European Sky package. By doing so the legislator acknowledged that the achievement of its objectives in that field justified Community action.
67. The system so established mixes however safety with other regulatory aspects and does not provide for the total system approach to safety regulation called for by the legislator when adopting the Basic Regulation. Replies to NPA 2007-16 showed indeed that the vast majority of stakeholders, while stressing the need for consistency and continuity with the already established SES processes, were also convinced about the benefits of transferring ATM/ANS safety regulation under the EASA system, with common rules implemented uniformly under the oversight of a centralised independent body. The proposed action aims, therefore, at further streamlining Community action in this field without affecting its compatibility with the subsidiarity principle.
68. Moreover, the risk mitigation process followed when developing the Essential Requirements ensures that the common action is proportionate to the safety objectives and does not extend beyond what is strictly necessary to achieve these objectives. In addition, the EASA system, with its possibility to combine so called "hard" and "soft" law, provides a good answer to the needs for subsidiarity and proportionality in regulating ATM/ANS safety. Care of course shall also be taken that these principles are respected when developing the related implementing rules.
69. In conclusion it is considered that the present proposal is in accordance with the principles of subsidiarity and proportionality as set out in Article 5 of the Treaty establishing the European Community.

## **V. Regulatory Impact Assessment (RIA)**

70. The impact assessment of the measures suggested in this Opinion has been made with the view to avoid duplication of work with that of the Commission, which is also obliged to produce its own impact assessment. The attached RIA demonstrates that proposed measures provide for the best possible solution when several alternative options are possible, taking into account their possible safety, economical, environmental and social impacts, as well as their compatibility with international and other applicable aviation legislation. No significant environmental impact has been identified.
71. The impact assessment also demonstrates that the additional resources needed at the level of the Agency to execute the related tasks are rather marginal. These resources include 21 operational staff members, mainly for rulemaking and standardisation inspections; taking into account the indirect administrative posts necessary to support this additional staff, the total number of staff the Agency needs to undertake its tasks in the field of ATM/ANS regulation can be evaluated to 25 posts for an overall cost



below 4 million Euros per year. It is not envisaged that certification tasks would have a significant short term impact, although this may grow with future developments towards pan-European systems; however, the related resources would be compensated by fees from applicants and would not constitute an extra burden for the Community budget.

72. The Agency therefore considers that the extension of the scope of Basic Regulation as envisaged in the present Opinion will have a globally positive impact on operators and citizens in the Community.

## VI. Conclusion

73. In summary the Agency is of the opinion that the regulation of the safety and air/ground interoperability of air traffic management and air navigation services shall be organised under the aegis of the EASA system. Therefore:

- The Basic Regulation should be amended to provide for the appropriate legal basis;
- All the airspace covered by the SES regulations, as well as the uncontrolled airspace over the territory of Member States where the Treaty applies, shall be subject to Community legislation;
- Dedicated common essential requirements (ERs) mitigating all safety hazards related to the use of airspace must be introduced as an additional Annex to the Basic Regulation;
- The use of any block of airspace shall be governed by a concept of operations designed to mitigate the risks of collision between aircraft and between them and the ground;
- Airspace users shall comply with the rules issued to implement the concepts of operations applicable in the airspace in which they operate and make use of the services mandated for use of that airspace;
- Organisations and personnel involved in the provision of ATM/ANS shall be responsible for the implementation of the applicable essential requirements;
- Air traffic controllers and organisations involved in their training shall be subject to certification;
- Systems and constituents used for the provision of ATM/ANS shall comply with appropriate safety requirements when their criticality so justifies;
- Powers shall be given to the Commission to adopt implementing rules defining the detailed requirements the above mentioned organisations, personnel and systems and constituents have to comply with, as well as the applicable certification processes, when relevant;
- Such implementing rules shall be proportionate to the level of complexity of the regulated activity or of the criticality of the concerned system and constituent; they shall initially be based on the related provisions of the SES regulations and of rules taken for their implementation so as to provide for a seamless transition;
- Oversight of compliance of organisations with the essential requirements and the related implementing rules shall be done by the competent authorities of Member States, except for the oversight of organisation located in third countries or providing services in the airspace of more than three Member States, which shall be done by the Agency;
- Rulemaking, safety analysis and standardisation inspections of national competent authorities shall be done by the Agency;
- ATM/ANS providers shall adopt and implement a fully-fledged safety management system and shall be certificated, except those providing only flight information or aerodrome apron management services, which shall only declare their capability;
- While the verification of compliance of systems and constituents shall be part of the certification of the ATM/ANS providers, safety critical equipment may be subject to dedicated certification schemes, involving a possible demonstration of

capability of their designer and manufacturer, when so specified by the implementing rules, after proper assessment of the safety and economic benefits in doing so.

74. The Agency is of the opinion that the above described policy is the best means to regulate safety and air/ground interoperability of air traffic management and air navigation services in the territory of the Member States. It reflects the majority of the views expressed by all parties that answered the consultations organised to prepare it. The proposed policy also organises a balanced sharing of powers, consistent with the institutional structures of the Community, by limiting the centralisation of tasks to what can be better achieved by the Commission or the Agency. The Agency therefore recommends that the Commission initiates the legislative process based on the present Opinion and amends accordingly the existing legislation applicable to the Single European Sky in order to avoid double regulation and conflicting requirements.

Cologne, 15 April 2008

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