

Article 62

Panel evaluation

Final report - 9 December 2013



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CHAPTER 1

Foreword

1.1 Background

1.1.1 Regulation (EC) No. 216 of 2008 of the European Parliament and of the Council (which repealed Regulation (EC) No. 1592 of 2002) sets down common rules in the field of safety for civil aviation in Europe. It also establishes the European Aviation Safety Agency (EASA) which is at the centre of the safety regulatory system in Europe. The Agency works in cooperation with a number of partners (see 3.1) in what is known as the EASA system. The principal objective of Regulation 216/2008 (henceforth “the Basic Regulation”) is to establish and maintain a high uniform level of civil aviation safety in Europe.

1.1.2 Article 62 of the Basic Regulation requires the Management Board (established in Article 33) of the Agency to commission periodically an independent external evaluation on the implementation of the Regulation. A Panel of experts (the composition of which can be found in Annex 1) was commissioned by the Management Board at the end of 2012 to undertake the external evaluation. The Panel was charged with giving an interim report by mid-September 2013 with its final report and recommendations to be presented to the Management Board meeting in December 2013.

1.2 Terms of Reference

1.2.1 The terms of reference given to the Panel by the Management Board were: “The evaluation will consider the EASA System as a whole, and report and make recommendations on the following three questions:

- a) What are the main challenges the EASA System will face in the period up to 2020?
- b) Does the present performance of the System indicate that it is fit to face these challenges?
- c) What steps should be taken, including possible amendments to the EASA Basic Regulation, to adapt or develop the System to meet the challenges?

1.2.2 The Management Board also set down the context which the evaluation should take into account. Two contextual elements were highlighted. These were:

- The budgetary and resource constraints likely to affect all actors over the period in question; and
- The increasing divergence of National Aviation Authorities (NAAs) in terms of aspiration and capability in the field of aviation safety regulation.

1.2.3 The Panel was also asked to consider the following:

- The current level of aviation safety in Europe, having regard to the target set out in the Commission's 2011 White Paper to become the safest region in the world;
- The capacity of the current System to move towards greater emphasis on risk-based, evidence-driven regulation;
- The appropriateness of the current scope of EU safety rules, taking into account technological, regulatory and business model developments as well as results of safety analysis;
- The scope for efficiency gains in the System;
- The importance of effective partnership between different actors in the EASA System;
- The interfaces between the EASA System and the Single Sky Initiative, and relations between EASA, EUROCONTROL and the SESAR Joint Undertaking;
- The way the EASA System addresses the external dimension, taking into account safety requirements, competitiveness issues and Pan-European interests; and
- The functioning of current governance structures as laid down in the Regulation.

1.3 Methodology

1.3.1 As regards work methods, it was left to the Panel to determine these. The Panel designed a wide ranging questionnaire to elicit responses from a broad range of stakeholders. (The questionnaire and the list of those consulted are in Annex 2: 65% of EASA MS replied and 70% of Organisations consulted replied). It also decided to interview in person a

representative number of figures with wide experience at senior management level in civil aviation in the public and private sectors both from Europe and outside Europe. The lengthy interviews were carried out on the explicit understanding that views or opinions would not be individually attributed without the express consent of the interviewee. (The list of those interviewed is in Annex 3). The responses to the questionnaire and, in particular, the views expressed in the interviews were enlightening and of great value. In addition, the Panel had regard to the previous Article 62 external evaluation, examined EU Regulations and other documents, analysed EASA reports and other information and looked closely at the current and future state of EU and global aviation based on a range of reports and studies. But the Panel also relied to a significant extent on the expertise and decades-long experience of its members in the field of civil aviation. The conclusions and recommendations that follow in this evaluation are those of the Panel, reached after prolonged deliberation. The Panel takes full responsibility for them. The Panel took note of current proposals to amend Commission Regulation (EC) No. 2042/2003 in relation to safety rules concerning General Aviation aircraft. In the circumstances, the Panel decided not to focus its attention on this subject in its evaluation.

- 1.3.2** Finally, the Panel decided to apply a broad interpretation to its terms of reference and so informed the Management Board at an early stage. It believed, in particular, that given the pace of development and enactment of EU legislation, some of its recommendations would make little sense if confined to the 2020 timeframe envisaged in the terms of reference. It also believed strongly that it was its duty to look at the longer term institutional aviation safety framework in Europe and indicate in broad terms how it saw the EU's institutional architecture potentially developing.

CHAPTER 2

Executive Summary

- 2.1** The members of the Panel commissioned at the end of 2012 by the EASA Management Board under Article 62 of Regulation (EC) No. 216/2008 of the European Parliament and of the Council are happy to present their independent, external evaluation in accordance with the requirements of that Regulation.
- 2.2** The terms of reference for the evaluation are contained in Chapter 1 as is a description of the Panel's methodology.
- 2.3** Chapter 3 contains a short overview of the EASA System itself together with a look at market developments in Europe and beyond having direct implications for the System and the EASA Agency. Chapter 3 also looks briefly at recent developments in European air safety, providing a context for the Panel's evaluation.
- 2.4** In Chapter 4, the main challenges facing the System now and likely to face it in the future are identified. This non-exhaustive list emerged from a consultation exercise undertaken by the Panel, which included a detailed questionnaire sent to Member States, NAAs, international organisations, trade associations, other representative bodies and the manufacturing industry in both the public and private sectors. Representatives at senior management level of a wide swathe of expert opinion in the air transport industry both in and outside Europe, were interviewed. Finally, this list is also a product of intense discussion amongst Panel members.
- 2.5** Chapter 5 discusses the three major issues identified as such by the Panel and recommends to the Management Board action that the Panel considers necessary. The emphasis is on adopting a risk-based approach in the EASA System, a proposal for the sharing of expertise across the System in situations where Member States experience difficulty in fulfilling their oversight responsibilities and the clarifying of institutional roles and responsibilities.
- 2.6** Chapter 6 focuses on the Agency itself and looks at management issues, financing and budgetary matters, the question of recruitment and related issues and the role of the Agency in the international arena.

- 2.7** Chapter 7 deals with the vision of the Panel for a single, integrated body responsible for all aspects of aviation safety in the EU. The Panel strongly felt that it had a duty to look at and make recommendations on the longer term future, given the Panel's view, shared by many who contributed to its work, that the present System would not be sustainable in the medium to long term.
- 2.8** The Panel's advice in this report is addressed to the Management Board on the understanding that it is for the Board to decide on the follow-up and implementation of the recommendations, guidance, suggestions and proposals put forward by the Panel.

THE PANEL'S MAIN RECOMMENDATIONS

While the Panel has for the Management Board's convenience listed below its main recommendations, the Panel cannot emphasize too strongly the need for the Board to consider the totality of this report as the source of its advice to the Management Board. To concentrate only on these main recommendations would, in the Panel's view, not do justice to its work, nor would it enable the Management Board to derive full value from the Article 62 evaluation exercise.

1. The work of establishing a risk-based EU Safety Management System should be prioritised and completed urgently. It should extend to all areas in the Agency's remit and be mandatory involving changes to the Basic Regulation. Data collection and exchange should be accorded priority and action to implement a just culture regime across the EU System should be stepped up. Tools for the analysis of data and shared information should be enhanced as a matter of urgency (see 5.2.1, 5.2.2 and 6.2.1).
2. The Agency should be mandated for the safety aspects of EU security measures as well as the safety aspects of ground handling, commercial space transport and remotely piloted aircraft (see 5.1.2 and 5.1.3).
3. Should Member States have insufficient resources to perform their oversight activities the Panel recommends a System-wide solution, which may be voluntary in nature but may in some cases need to be mandatory (see 5.3.2). For the voluntary solution the Agency should, by amending the Basic Regulation, be authorised to execute the national oversight duties for those Member States that wish to transfer their duties to the Agency. Where the

voluntary solution is not appropriate or practical for whatever reason but the oversight responsibilities are not being or cannot be performed, a mandatory solution, requiring amendment of the Basic Regulation is recommended. The Agency should be mandated to identify and report to the Commission those States/NAAs failing in their oversight obligations and if a method to resolve the problem (whether voluntary or mandatory) is not availed of by those States, consideration should be given to employing whatever measures are available to the Commission/Agency to resolve the issue (see 5.3.3).

4. The Management Board should initiate a study designed to clarify institutional roles and responsibilities of the actors involved in the EASA System. The outcome of the study should lead to a common understanding – pending any regulatory changes that may be required – amongst the EASA System actors on their institutional boundaries, responsibilities and roles. This understanding would be expressed in an agreed document (see 5.4.1).
5. A method should be found of tapping into and using the pool of expertise available in the European manufacturing industry. In addition, consideration should be given to delegating self-oversight arrangements to the industry on the basis of clear legal conditions (see 5.4.2).
6. A small Executive Board should be created and responsibility delegated to it by the Management Board, empowered to enable it to do this. Amendment of the Basic Regulation would be required (see 6.1.3).
7. The European Aviation Safety Plan should be embedded in the Basic Regulation (legally binding the Agency and Member States) and, as a rule, Agency proposals should emanate from this Plan (see 6.2.2).
8. To assist in securing stable and predictable funding of the Agency, new sources of funding should be explored with a stronger emphasis on the application of the user pays approach. One source that should be explored is the possibility of drawing on air navigation en route charges (see 6.3.2).
9. The Management Board should recognise and accept that the current EASA System is not sustainable in the medium to long term (see 7.1.6).
10. The Management Board should acknowledge the need for early planning to develop the present System into a genuine European Aviation Safety System through the convergence of the various existing system actors towards a single entity, one integrated Agency, within the EU institutional architecture (see 7.1.6).

CHAPTER 3

Overview

3.1 The EASA System

- 3.1.1** The EASA System is a work in progress, with, at its heart, the European Aviation Safety Agency and its relationship to the European Institutions (in particular, the European Commission), Member States and National Aviation Authorities (NAAs). Other important actors in the System include EUROCONTROL and to some extent ICAO. On the regulated side, the main actors are the aviation manufacturing and air transport industries and these are important stakeholders in the System. The EASA Agency was established in 2003 (by Regulation 1592/2002) as the successor to the Joint Aviation Authorities (JAA) which had developed the first common standards for aviation safety in Europe. The JAA was the first institutional attempt at developing harmonised aviation safety rules for Europe but it had not got the power and authority of a statutory body. Since being established in Cologne in 2003, the Agency has through successive EU Regulation seen its responsibilities and the scope of its work increase (a recent history of the development of the Agency and how it operates is contained in Annex 4). The institutional architecture and the relationships between actors have also changed and these relationships, while they may be set down in regulation, can generate confusion as to how European civil aviation safety is managed in practice and as to what the different roles of the various actors are. At this stage of its development it could be argued that the regulation of civil aviation safety in Europe requires a management structure commensurate with its fundamental importance to European citizens and to the European air transport industry.
- 3.1.2** The backbone of the present System -and this will remain the case irrespective of what future system emerges - is a set of common safety rules designed for uniform application across the EU. Those rules apply both to the air transport industry, persons, organizations and products and to the civil aviation authorities of EU Member States. EASA has a crucial role in ensuring the standardised implementation of these common safety rules, hence the importance of the EASA/NAAs

relationship. It would appear that the piecemeal, incremental approach to the development of the present System and in particular to the Agency's functions since 2003, has led inevitably to the less than ideal model we now have. That model needs to be improved and it is for this reason that the Panel's evaluation puts great emphasis on the longer term future of Europe's aviation safety regime. In doing so, the Panel acknowledges that in the current economic climate, there is a huge strain on the resources of Member States, National Aviation Authorities and, of course, the EASA Agency. It is incumbent on all partners in the EASA System to strive for greater efficiency in the use of these more limited resources and this goal underpinned the Panel's evaluation.

3.2 The Air Transport Market Context

- 3.2.1** International civil aviation is characteristically labelled a dynamic industry. Major aircraft manufacturers estimate that the total number of commercial aircraft will double by the year 2031. This expected development in the world's fleet of aircraft implies a fast growing demand for highly qualified and trained personnel both to fly and maintain the aircraft. According to the latest estimate prepared by one major manufacturer, the required number of such new staff at a global level will be approximately one million over the next 20 years (Europe will require approximately 25% of these staff). This of course will have an impact on the Agency which is referred to elsewhere in this report.
- 3.2.2** The recent and current air transport market in Europe might more accurately be described as one which is facing challenges and changes so significant that the manner in which it responds to these twin threats/opportunities could determine its longer term future. Two of the biggest challenges facing Europe's air transport industry are a weak economy which is undermining demand and the constant risk of rising fuel costs (which typically account for between 30% and 40% of airline costs). These are also problems that are beyond the ability of the industry to control or influence. Europe's industry is also dealing with internal restructuring of the EU market with network carriers in recent years losing about one third of their market share to low cost carriers. In addition the

Gulf airlines present real competitive challenges to Europe's network carriers and they appear to be less affected by pressures on the industry.

3.2.3 On the basis of capacity offered, Europe is the second most important aviation region in the world after Asia. But air transport growth in Asia is set to continue to outstrip Europe's, and North America, with recent signs of a real economic upturn coupled with greater market consolidation than exists in Europe, looks to have a better base for growth. In addition, Airbus and Boeing are likely in the relatively near future to face direct competition from China in aircraft manufacturing, presumably at lower cost. The emergence of China and Japan in the manufacture of aircraft will also have significance for the work of EASA. The importance of this development for Airbus should not be underestimated. At present, three Asian low cost carriers (Air Asia, Lion Air and Indigo) have orders for over 1,000 Airbus and Boeing aircraft between them, with about half of these orders due for delivery in the next two years. All European carriers combined have fewer aircraft on order. Any tendency by Asian airlines to favour an emerging lower cost Asian manufacturer could have significant effects on Airbus. In Boeing's 20 years forecast up to 2031, it is predicted that in that period 65% of wide body long haul aircraft will be sold in the Middle East and Asia.

3.2.4 In brief, European air transport faces big market challenges. Faced with slow domestic (EU) growth, the challenges beyond Europe will include a very competitive Asian market, a protected US domestic market and the possible emergence of large scale, lower cost aircraft manufacturing in China. Within the European market, there will presumably continue to be changes in market share between legacy and low-cost carriers. In response to all these challenges new technological solutions and new business schemes are going to impact heavily on the work content of the EASA system.

3.3 Safety Issues

3.3.1 Over the past decade (latest figures being for 2012), the number of fatal accidents involving EASA Member State operated aircraft (above 2,250kgs MTOW) has decreased. Since 2007 there has not been a year with more than 1 fatal accident involving an EASA Member State operated aircraft.

The worldwide rate of fatal incidents for scheduled passenger and cargo flights has continued to decrease in the period 2003-2012, providing a steady improvement in aviation safety. In that period, the rate of fatal accidents in EASA Member States is slightly lower than that in North America (source EASA Annual Safety Review 2012). This impressive record should be set in context. In 2012 the number of flights in EASA Member States was 10.5 million, 67% of which were traditional scheduled flights, 27% low cost scheduled flights and 6% charter flights. The number of passengers carried was 925 million and there was only 1 fatal accident.

- 3.3.2** Accidents and serious incidents at aerodromes in EASA Member States are also decreasing. In the period 2008-2012, there were 15 accidents and serious incidents to which the aerodrome contributed in some way.
- 3.3.3** The rate of reported (by EUROCONTROL) ATM-related incidents between 2003-2012 increased but the number of serious/ major incidents remained stable indicating that the overall increase related to reporting.
- 3.3.4** This largely positive picture of air safety in Europe cannot be taken for granted and both regulators and regulated must continue to maintain and even improve Europe's record on air safety. In the medium to long term future described in earlier paragraphs as being at the very least challenging, any deviation from the highest standards of air safety could have a significant negative impact on Europe's air transport industry.

CHAPTER 4

Identifying the challenges now facing and likely to face the EASA System

4.1 Compiling the list

Based on the responses to the Panel's questionnaire, the views of those senior air transport figures interviewed and discussion amongst Panel members, the following list of challenges now facing or likely to face the EASA System was identified. While this list cannot claim to be exhaustive, it is representative of the views of a wide range of air transport experts within the public and private sectors in and beyond Europe. In addition, the Panel has identified what are, in its judgement, the three most important challenges to the System.

4.2 The challenges

The list, with in the first three places, the most important challenges in the judgement of the Panel, is as follows:

- Implementing a risk- based policy across the System but in particular for Agency rule making activities and EASA/NAA oversight activities.
- Identifying urgently any gaps or weaknesses affecting Member States' abilities to perform their legally required oversight duties and proposing a methodology to deal with this.
- Enabling better cooperation throughout the System in order to eliminate waste of resources and increase overall efficiency.
- Need for the System to adapt to new tasks and responsibilities including aerodromes and ATM.
- Need to evaluate the question of requiring the European Aviation Safety Plan to be made legally binding on the Agency and Member States.
- Need to strike an effective balance between the centralising role of the Agency and the principles of subsidiarity and proportionality.
- Need to achieve a balance between developing new regulations (which should be exclusively based in safety requirements) and full implementation of existing regulations.

- Need to address the Agency's revised procedures for consultation with users on rule making to reassure them that their comments/proposals will be dealt with and responded to.
- How to ensure a reliable, predictable and stable method of funding the Agency, combined with control mechanisms to protect users' interests.
- How to represent the overall interests of the European air transport safety System globally, including in ICAO and with Europe's major international partners and other regional organizations.
- How to ensure that the management structure of the Agency, including the roles of the Executive Director and Management Board and the relationship of the Agency with EU institutions are responsive to changing circumstances in the regulation of European air transport.
- Need to develop a more collaborative approach with the Commission and NAAs based on trust, competence and respect within defined roles.

CHAPTER 5

5.1 Issues with the current System (including governance issues)

- 5.1.1** The current regulatory architecture of safety in civil aviation in Europe is unwieldy, to some extent at least because of the number of institutions which have a role to play. The EASA System includes the EU Institutions, notably the Commission, the European Aviation Safety Agency (EASA), Member States and National Aviation Authorities (NAAs). Other important actors include EUROCONTROL and to some extent the International Civil Aviation Organization (ICAO). In addition the European Civil Aviation Conference (ECAC) has an important but non-regulatory role to play. The essence of the System is that the Agency prepares draft rules for consideration and adoption by the European Union processes, National Aviation Authorities are charged with implementing the adopted rules and the Agency monitors their implementation. The Agency also has a number of executive tasks, for example airworthiness certification and third country organisation certification. All European air safety matters must in future be dealt with under the aegis of the EASA System. All EASA Member States are Contracting States of ICAO and have legal obligations under the Chicago Convention. At the core of the EASA System is the relationship between the European Commission, the Agency and NAAs. This is likely to remain the case for the period covered by this Article 62 review. The Panel believes, however, that a problem does exist when it comes to the way in which tasks in relation to oversight workload are split between the Agency and NAAs. This may be primarily a question of resources but the implications for safety oversight could be serious if not addressed.
- 5.1.2** The current System, whatever its imperfections, is characterised by consistently high safety levels in European air transport and the European System had the lowest accident rate in the world in 2012. The Panel does not believe that a fundamental restructuring of the institutional architecture would be possible in the period under review by the Panel. There is a considerable degree of flux in the regulatory scene in Europe at the moment and the System (and in particular the Agency) needs time to adjust to and bed in responsibilities for safety of ATM and aerodromes,

provision for which is included in Regulation 216/2008 (the Basic Regulation). ATM regulation should be approached on a gradual, progressive basis and a clear sharing of responsibilities between EASA and EUROCONTROL agreed under the formal working arrangement between the Agency and EUROCONTROL. In addition, the Panel is of the view that the security of communications between the ground and aircraft (protection from cyber-attacks for example) should be a matter for EASA since it has clear implications for safety. The Panel believes that it makes sense to add responsibility for the safety aspects of EU security measures and EU ground handling measures to EASA's remit. This would require amendment of the Basic Regulation.

- 5.1.3** With advances in technology, some issues have become increasingly urgent to deal with. The tasks of regulating the safety aspects of commercial space transport and remotely piloted aircraft fall into this category and they accrue to EASA and should be accorded the priority they deserve. The Panel notes that, in accordance with the Basic Regulation, EASA may engage in research activities in its fields of competence. The Agency has funded a number of research studies and reports but the Panel would like to see increased research activity and encourages the Management Board/Agency to place more emphasis on this area.
- 5.1.4** At this juncture, and having pointed to the high levels of safety delivered by the current System, the Panel wishes to add a note of caution. The view has been expressed to the Panel on a number of occasions that the current system is unsustainable in the medium to long term. The Panel shares this view. Faced with the safety demands of an increasingly complicated air transport industry, driven by major new players on the global scene and the requirements of incrementally more and integrated technologies, the System will sooner rather than later require a major overhaul very likely in the direction in the long term of a single integrated entity responsible at European institutional level for all safety matters. The Panel deals with this issue in Chapter 7.
- 5.1.5** On balance, considering the current range of safety rules and specifications, the Panel believes that the emphasis for now and the

period covered by its mandate, should be on completion of the rulemaking tasks assigned to the Agency under the Basic Regulation and on avoiding extra regulations that are not based on confirmed safety risks. Rather the approach should be to consolidate and improve the functioning of the present Regulatory System. In that regard, the Panel considers that the three major challenges facing the present System are:

- To implement a risk based policy across the board but in particular for Agency rulemaking activities and Agency/NAA oversight activities.
- To identify urgently any gaps or weaknesses affecting Member States' abilities to perform their legally required oversight duties and to propose a methodology to deal with this; and
- To enable better cooperation in order to eliminate waste of resources and increase overall efficiency. New tools to develop such cooperation may be proposed (see 5.4).

5.2 Risk-based approach

5.2.1 A risk-based approach is an inherent part of a Safety Management System (SMS). SMS has been adopted by ICAO as standard international practice. The European Union is in the process of moving from what has mainly been a reactive system in which some new regulations resulted from experience (often of accidents or incidents) towards a proactive system that attempts to anticipate and focus on potential safety risks. This move to what would be an EU Safety Management System is in line with international practice and should be completed as a matter of urgency. It will involve close collaboration between the Agency and NAAs. Data collection and exchange are fundamental to a risk-based approach and should be a priority. The importance of a just culture regime is acknowledged by all but action to ensure the success of a just culture reporting regime (including at legal level in Member States) needs to be stepped up. In addition to the sharing of information (occurrence reporting), tools for analysis should be enhanced as a matter of urgency.

5.2.2 State Safety Programmes (SSPs) exist in most Member States and a Europe-wide equivalent (EASP- the European Aviation Safety Programme) is in place (see 6.2.2 for the Panel's recommendation in relation to the European Aviation Safety Plan). The first EASA SSP (at State level) and

SMS (at Organisation level) requirements have been adopted in the form of authority and organisation requirements with Regulation (EU) 290/2012 in the domain of flight and cabin crew and Regulation (EU) 965/2012 in the domain of air operations. Requirements will be progressively extended to other domains of the aviation system. The Authority Requirements contain elements that are essential for establishing a comprehensive SMS at EU level. This work should be prioritised, extended to all areas in the Agency's remit and made a mandatory requirement. Changes to the Basic Regulation would be required to bring about this development. The Panel envisages that the Agency would have the lead role in this activity.

5.3 A methodology to deal with weaknesses in Member States' oversight abilities

- 5.3.1** A number of those interviewed by the Panel and Panel members have observed that several Member States have insufficient resources to perform adequately their oversight responsibilities. A consistent and uniform level of safety across the System is essential to maintain the confidence of the travelling public but is also vital for the continued credibility of European safety in a global context. It is vital, therefore, to find a solution urgently to this problem.
- 5.3.2** Since all EU Member States are part of the EASA System, the Panel strongly believes that a System-based solution to the problem can be found. For example, the Agency may, if approached on a voluntary basis by a Member State/NAA or a number of Member States/NAAs, ensure provision of the oversight tasks of those Member States/NAAs. This would require amendment of the Basic Regulation. In addition, and again on a voluntary basis on request, a regional grouping of Member States/NAAs could be formed to ensure provision of the oversight tasks of those Member States/NAAs unable to perform them. Whether such an arrangement needs legal underpinning could usefully be clarified.
- 5.3.3** In cases where no voluntary approach is made to the Agency or other Member States/NAAs in a situation where oversight responsibilities are not or cannot be performed, the resources and expertise available in other Member States/ NAAs or in the Agency should be marshalled and on a System-wide basis put at the disposal of any Member State/NAA unable

to fulfil its oversight obligations. A method of doing this should be worked out in detail, with attention being paid to practical matters such as cultural and language differences and proximity, and to financial issues like the costs of a system-wide approach and who pays them, and whether the intervention be one voluntarily requested or obligatory. The Panel favours an obligatory and legal underpinning to the sharing of resources and expertise. This would require amendment of the Basic Regulation. The Panel acknowledges that the political will to follow this proposal is a fundamental requirement and stresses the importance of promoting and encouraging this political will. The Panel believes that, given its central role in the System, the Agency should have the task of identifying and reporting to the Commission those States which in the Agency's view do not now, or are unlikely to be able to in the future, carry out their required safety oversight responsibilities. If for any reason, a method (be it voluntary or obligatory) is not availed of by a Member State/NAA which does not comply with its oversight obligations, consideration should be given to measures available to the Agency/Commission to resolve this issue, in the overall safety interest of an integrated System.

5.4 Clarifying institutional roles and responsibilities

- 5.4.1** The Panel has been informed by interviewees and it also emerged in responses to the questionnaire that, perhaps due to the number of actors in the EASA System, there is some confusion regarding roles and responsibilities, leading to inefficiencies. The Panel, therefore, recommends that the Management Board initiate a study to be carried out by the Agency, the European Commission, the Member States and their NAAs, into areas of overlap or lack of clarity which may have developed over the years amongst the regulatory bodies in the EASA System, identifying examples of work carried out in the Member States that could be pooled either centrally by the Agency or through groups of Member States. The outcome of this investigation should give rise to a common understanding to be enshrined – pending the enactment of any required regulatory amendments - in a document, be it a Declaration, MOU or other instrument, on the institutional boundaries, responsibilities and roles: a document which could also set down a methodology for the

practical implementation of innovations to the system such as the sharing of expertise.

- 5.4.2** Finally, the Panel notes the increasing technological complexity of many aspects of present and future developments in European air transport. It is not at all clear that it will be easy or even possible to recruit the required level of expertise, either at national or international level. A method of tapping into the pool of expertise available in, for example, the European manufacturing industry, should be found. This will be of overall benefit to the regulatory System in Europe and would have the ancillary benefit of acknowledging the valuable role that industry can play as actively involved partners. The Panel believes that consideration should be given to delegating self-oversight arrangements to the industry on the basis of clear legal conditions. In addition, consideration should be given to permitting the Agency to delegate, to designated representatives of the Agency, the functions of examining, testing or making inspections to assist the Agency in providing timely certification services. This would make optimal use of limited resources. This effective use of delegation is permitted by law to the United States FAA.

CHAPTER 6

Issues Concerning the Agency

6.1 Management of the Agency

- 6.1.1** All safety-related decisions of the Agency are, according to the Basic Regulation, to be made by the Executive Director who has a “high degree of flexibility to organise the internal functioning of the Agency”. In practice, the cumulative powers of the Management Board, which in turn are to a significant degree subject to European Commission opinion or agreement, may put a constraint on the Executive Director’s ability to manage. Nevertheless, the Executive Director in taking all safety related decisions would be liable before the Courts if any wrongdoing in the Agency were to result in or contribute to an accident. This heavy responsibility raises the question as to whether the Executive Director’s competence, for example, in the recruitment of key staff is defined appropriately in the Basic Regulation. In the case of appointments of senior officials (Agency Directors), the Executive Director usually acts as Chair of the pre-selection board but the remainder of the process is operated by the Management Board. Since the important legal responsibility of the Executive Director requires full confidence and trust in the quality of the work of senior officials the Panel recommends that consideration should be given to strengthening the say of the Executive Director in the appointment process for Agency Directors.
- 6.1.2** In relation to the establishment and implementation of the EASA budget the proposals to be made by the Executive Director have to undergo a complex decision making process involving the Management Board, the Commission and, at the decision point, the Council and European Parliament. Control of Community budget implementation is a matter for the Commission and the European Parliament and although this requirement may be seen as limiting the decision power of the Executive Director it is hard to see how structural changes to this part of the System can be justified. The Executive Director has the power to determine priorities within a given budget allocation. However, in doing so he/she must respect the rules governing the use of receipts from fees/charges or from the EU budget allocation. This gives the Executive Director some

degree of flexibility. It may be worth pointing out that the relationship between the Executive Director and the Management Board lacks a number of requirements normally found in a CEO/Board relationship. There are, for example, no management performance targets or accountability mechanisms set by the Management Board.

6.1.3 The Panel notes from its broad-based consultation that there is little demand for immediate wholesale changes of the Management Board's composition or structure. However, it believes that given the deficiencies identified above there are good grounds to consider empowering the Management Board to enable it to delegate some tasks to a newly created, smaller Executive Board, drawn from and representing the Management Board in most dealings with the Executive Director and Agency. One of the delegated tasks of this Executive Board would be to monitor the working relationship between the Agency (specifically the Executive Director), Member States/NAAs and the Commission, the key elements in the functioning of the EASA System. It would also, with delegated powers from the Management Board, bring the management of the Agency and the Executive Director/Agency relationship more into line with normal business practices. The Executive Board would be smaller and could, for example, consist of a representative of the Commission, geographical representation of EU Member States (as in the ICAO Council or ECAC's Coordinating Committee) and an industry observer. To optimise the functioning of the Executive Board, those Member States represented thereon by their nominated Management Board members, should as a rule ensure that these nominated members are Directors General of Civil Aviation. Amendment of the Basic Regulation would be required but need not delay the operation and benefits of a "shadow" Executive Board, which by agreement could begin work quickly.

6.1.4 The Panel in making this recommendation is fully aware that the management of a European Union Agency differs greatly from that of private sector companies or international organisations or trade associations. The Panel is not seeking to make any direct comparison. Nevertheless, the Panel strongly believes that some standard business practices such as performance management, compliance and accountability, establishment of clear lines of responsibility for both Board

and the Agency's executive could usefully be applied within the EASA System to the overall benefit of the Agency.

6.2 Other Agency Issues

- 6.2.1** If, as recommended, a risk-based approach - an inherent part of a European Safety Management System (see 5.2) - to the regulation of safety is adopted and implemented, the Panel believes that the Agency could be given greater powers to centralise the flow of data and have the ability to analyse these data. It will therefore require tools to undertake this analysis and distribution of the analysis to all involved in the System. This would require amendment of the Basic Regulation and could assist in bringing a harmonised, standardised approach to safety regulation.
- 6.2.2** The Panel recommends that the European Aviation Safety Plan (to be legally binding on the Agency and Member States) should be embedded in the Basic Regulation and that as a rule Agency regulatory proposals should emanate from the Plan, which would, as it is now, be subject to review to ensure that it remains consistent with developments affecting safety, in particular technology advances.
- 6.2.3** The Panel believes that operational responsibility by the EASA Agency for the safety of ATM should be exercised progressively with full advantage being taken of the experience and expertise of EUROCONTROL.
- 6.2.4** The Panel considers that Community rules should always seek in the first place to draw on ICAO Standards and Recommended Practices but should go beyond these if necessitated by the evidence. In such a situation Europe would notify ICAO.
- 6.2.5** The Panel noted reports of some dissatisfaction with the rate of rejected contributions (from industry, for example) on proposed rulemaking and, less acceptable, a tendency to ignore contributions or give no indication that they had been considered or taken into account. The Panel finds this disquieting but noted that new rules on consultation have recently been introduced and would hope that these will improve the situation.
- 6.2.6** To ensure standardisation, the Panel would encourage the Agency to strike a balance between proposing rules, whose implementation is a

mandatory requirement and acceptable means of compliance and other guidance material for the application of the implementing rules. In standardisation activities, the Agency should ensure that guidance material is not treated as a mandatory means of compliance with a rule.

6.3 Financing and Budgetary Issues

- 6.3.1** The Agency's budget is derived from fees and charges for its services and from a Community contribution. One of the difficulties with these sources of financing is that short notice, arbitrary reductions in the Community contribution /or fluctuations in industry activities, having an impact on the level of income from fees and charges can have negative consequences for the Agency's ability to implement its objectives and work programme. The Panel feels that stability and predictability of funding is vital, and it looked at ways of achieving this. The Agency is not exempt in the current economic climate from the need for cost discipline. Management control of costs, closer collaboration/sharing of resources with NAAs (including outsourcing leading to efficiency gains), savings on staff costs (the proportion of administrative and support staff to experts has been identified to the Panel as a concern), should all be examined closely. In addition, prioritisation of tasks (a by-product of a risk based policy applied System wide) allied to a reduction in the amount of new rulemaking should also help to reduce costs.
- 6.3.2** In the light of EASA's growing number of tasks and existing and foreseeable strains on the EU budget and public budgets generally, the Panel examined the possibility of a stronger emphasis on the application of the user pays approach to the Agency's funding. This essentially means that the industry or those who benefit from the EASA System or ultimately the passenger, would pay the Agency's full costs thus obviating the need for a Community contribution and increasing stability and predictability of funding. The Panel believes that serious consideration should be given to this but points out that it would have to be accompanied by efficiency incentives imposed on the Agency. The Panel considers that a source of funding, consistent with the user pays principle, which should be explored is the possibility of drawing on air navigation en route charges, collected by EUROCONTROL. The administrative machinery to do this exists already.

Beyond identifying the need for stability and predictability in sources of funding and emphasising the need to be inventive in exploring cost saving or efficiency gains it is not the role of the Panel to propose detailed solutions on funding. However, the Panel believes that financial independence for the Agency could reduce layers of Agency work, releasing more operational resources without increasing the budget. The Panel points out that, without prejudice to the overriding imperative of aviation safety, care needs to be taken that any EU charging policy preserves the independence of the Agency and does not put the European aviation industry at a competitive disadvantage globally or discourage general aviation related activities in Europe.

6.4 Human Resources, Recruitment and Outsourcing

- 6.4.1** It became clear to the Panel that some NAAs are finding it difficult to fulfil their statutory and Community safety responsibilities due to staffing/financial issues. Given the integrated nature of the EASA System, this is disquieting. It may be that the System collectively has recourse to enough staff but that resources are not evenly deployed. The Panel was concerned by this situation and strongly recommends remedial action (see 5.3.2 and 5.3.3).
- 6.4.2** The Panel cautions against overregulation by the Agency and believes that a cost/safety benefit analysis should precede any proposed new rulemaking. In addition, closer cooperation/collaboration with NAAs in the early stages of new rulemaking could help at a later stage in the EU process and could speed up subsequent implementation in Member States. The Panel notes that a number of these suggestions are incorporated in the newly approved rulemaking process.
- 6.4.3** The Panel notes that there are consequences for NAAs and the industry in terms of cost of recruitment of staff and that the Agency occasionally experiences difficulty in recruiting. With advances in increasingly complex technology in the air transport industry, the Agency will need to recruit the appropriate experts and be able to pay salaries commensurate with their expertise. The Panel believes that current standard EU recruitment rules may be an impediment to the recruitment of the best qualified staff for highly specialised jobs within the Agency. Since the amendment of

current rules to facilitate one Agency may be unrealistic, the solution may lie in attracting into the System to work in the Agency, expertise to be found outside the System. Consideration should be given to this idea but its financial implications would require careful evaluation. This proposal would require a change to the Basic Regulation.

6.5 Role of Agency internationally

- 6.5.1** In the international arena, the Agency may establish relationships with other aeronautical authorities such as the US Federal Aviation Authority and other international organisations, but not with third countries. This is a matter for the European Union and its Member States, the Agency having an advisory role only. Even for the arrangements with other aeronautical authorities, prior Commission approval is required. The Panel sees no necessity to change this basic principle.
- 6.5.2** However, the Panel considers that, subject to Commission approval, the Agency should deepen its relations with and role in ICAO including with ICAO's regional organizations. In addition, another important step should be the development of direct relations with the NAAs of third countries of significant importance to Europe (again, subject to Commission approval). Member States should encourage this as a means of promoting Europe's safety culture and standards at global level. EASA should also promote common equipment standards such as, for example, for SESAR and NextGen. The resources necessary to extend the Agency's network of interests should be found by both internal deployment plus by closer cooperation with Member States whose experts could be seconded to the Agency on a short term basis and by "contracting" with other principal actors such as industry.

CHAPTER 7

7.1 Longer - Term Future

7.1.1 The terms of reference for the Panel's evaluation focus on the challenges to and performance of the EASA System in the period up to 2020. Although nothing in the terms of reference and general guidelines to the Panel would indicate that attention should focus on the medium or longer term future of the European air safety System or that fundamental changes to the System are envisaged, in the context of the long lead-in time for any improvements to the EASA System, the Panel believes that it would be failing in its duty if it did not look well beyond 2020. It is the Panel's view that the sooner there is an explicit acknowledgement at EU Institutional level of the eventual need for aviation safety in Europe to be vested in a single integrated Agency, the better. The Panel urges the Management Board and other stakeholders in the EASA System to recognise and prepare now for this future rather than wait for the next evaluation in five years' time. The current System may have served safety well and continues to do so but it is unsustainable in the medium to long term. There are too many actors in the System with different or overlapping responsibilities and roles and a mere listing of those actors serves to illustrate the fragmented nature of the System.

7.1.2 If Europe's record on air safety has been and continues to be excellent, there are many reasons for this including:

- a) A decades-long belief by European governments and at EU institutional level that safety is of paramount importance. This has underpinned the approach to regulating safety.
- b) A scrupulous adherence to the highest standards in design and construction of aircraft and equipment by European (and non-European) manufacturers.
- c) A knowledgeable and educated travelling public which believes that it is entitled to the highest levels of safety, and
- d) The work of the EASA Agency which in its relatively short life has succeeded in meeting high standards and adapting itself to a heavy workload.

7.1.3 In other words it is not because of the architecture of the present System that Europe's record on safety is excellent. The fact is that the Agency

exists in a sub-optimal System and this needs to be addressed. It is clear to the Panel that high, uniform levels of safety are being maintained in a System that is institutionally imperfect and the question must be asked – for how long can this continue? The Panel has been at pains to ensure that nothing in its recommendations for improving the present System would hinder or delay the gradual progression to a System with an integrated single Agency. In fact, the Panel believes that its recommendations, if implemented, would constitute an intermediate step to achieving that goal.

7.1.4 It is not for the Panel in this evaluation to dwell at length on the steps necessary to integrate in one Agency responsibility for all aspects of aviation safety but the Panel notes that at the core of the present System is the relationship between the Agency, European institutions and Member States. The rationale for establishment of the Agency was to give legal force to the JAA System and this was done in the Basic Regulation which devolved certain tasks to it. It may well now be that more fundamental changes to the Basic Regulation are required, including the devolving to the Agency of greater powers, within the limits imposed by the Treaties, and the construction of a new relationship between the Agency and Member States and between these two and the European Commission. These comments are offered by the Panel in the hope that they will be received positively, even if the Panel's terms of reference did not require it to address this issue.

7.1.5 European air safety is well served by having a uniform set of safety rules. It is not unreasonable to suggest or expect that a uniform set of rules would be managed, implemented and overseen by a single Agency with the necessary legal powers. This would be in the interests of efficient use of resources, the uniform implementation of regulations, transparency, cost and, as European air transport is a constituent part of an integrated, global System, it would also be a more effective means of advancing Europe's interests on the international stage. All certification and oversight activity in the System would be concentrated in an evolved Agency. In addition, the Panel believes that a single integrated Agency could lead to a standard qualification of oversight inspectors, permit of

integrated resource management within the EASA System and lead to the eventual creation of a common EU aircraft register.

- 7.1.6** The Panel believes that the required processes to create a genuine European Aviation Safety System through the convergence of the various existing actors in the System towards a single entity responsible for all aviation safety regulation and oversight should be embarked upon. The Panel accordingly recommends that the Management Board recognise and accept that the current EASA System is not sustainable in the medium to long term. It further recommends that the Management Board issue a statement that acknowledges the need for early planning to develop the present System into an aviation safety system integrated in one Agency, within the EU Institutional architecture.

Annexes

Annex 1

PANEL MEMBERS FOR ARTICLE 62 EVALUATION

Roy Griffins	Chair
Gerry Lumsden	Rapporteur
Francesco Banal	
Juan Bujia	
Emilia Chiavarelli	
Alain Garcia	
Georg Jarzembowski	
Krzysztof Kapis	
Kim Salonen	
Eckard Seebohm	

Annex 2

Organisations consulted

Organisation acronym	Organisation name
ACI	Airports Council International
AEA	Association of European Airlines
AEI	Aircraft Engineers International
Agusta-Westland	Agusta-Westland
AIA	Aerospace Industries Association
AIAB	Aerospace Industries Association of Brazil
AIAC	Aerospace Industry Association of Canada
AIRBUS	AIRBUS SAS
Alenia Aeronautica	Alenia Aeronautica
ASD	AeroSpace and Defence Industries Association of Europe
ATCEUC	Air Traffic Controllers European Unions Coordination
BCA	Boeing Commercial Airplanes
CANSO	Civil Air Navigation Services Organisation
Dassault	Dassault Aviation
EAAPS	European Association of Airline Pilot Schools
EAS	Europe Air Sports
EBAA	European Business Aviation Association
ECA	European Cockpit Association
ECOGAS	European Council of General Aviation Support
EHA	European Helicopter Association
EIMG	European Independent Maintenance Group
ELFAA	European Low Fairs Airline Association
ERA	European Regions Airline Association
ERAC	European Regional Aerodromes Community
ESAM	European Society of Aerospace Medicine
ESM	European Sailplane Manufacturers
ETF	European Transport Workers' Federation
Eurocopter	Eurocopter
FNAM	Fédération Nationale de l'Aviation Marchande
GAMA	General Aviation Manufacturers Association
IAAPS	International Association of Aviation Personnel Schools
IACA	International Air Carrier Association
IAOPA	International Aircraft Owners and Pilots Association
IATA	International Air Transport Association
IFATCA	International Federation of Air Traffic Controllers' Associations
IFATSEA	International Federation of Air Traffic Safety Electronics Associations
Rolls Royce plc	Rolls Royce plc
SNECMA	Société Nationale d'Etudes et de Constructions de Moteurs d'Aviation

In addition, questionnaires were sent out to all EASA Member States, mainly the NAAs and NSAs, the Commission, EUROCONTROL and ECAC.

Questionnaire

QUESTIONS FOR ALL THOSE CONSULTED

Introduction

Article 62 of EU Regulation 216 of 2008 stipulates that an independent external evaluation of the implementation of the Regulation shall be undertaken at five-yearly intervals. The evaluation will, inter alia, examine how effectively EASA is fulfilling its mission and assess the impact of the Regulation, the EASA Agency and its working practices in establishing a high level of civil aviation safety in Europe. An independent expert Panel has now been commissioned to undertake this evaluation.

In commissioning the Panel, the Management Board of EASA indicated that the evaluation to be made would consider the EASA system as a whole and report and make recommendations on the following three questions:

- a) What are the main challenges the EASA system will face in the period up to 2020?
- b) Does the present performance of the system indicate that it is fit to face these challenges?
- c) What steps should be taken, including possible amendments to the EASA Basic Regulation (Reg. 216 of 2008), to adapt or develop the system to meet the challenges?

Any comments that you might wish to offer on these three issues would greatly assist the work of the Panel as would your responses to the following complementary detailed questions. Your cooperation would be appreciated.

1. PRINCIPAL OBJECTIVE

The principal objective of Regulation 216 of 2008 is to establish and maintain a high uniform level of civil aviation safety in Europe. Do you believe that this should remain the Regulation's sole principal objective or should the Regulation contain other objectives deemed to be principal?

2. ROLE AND PERFORMANCE

- 2.1. Are you satisfied with the services provided by EASA? If not, please elaborate.
- 2.2. In considering the current EASA system as a whole what are your views on its ability to face future challenges e.g. new technologies, moving towards a risk-based system, enhancing worldwide recognition of EASA certificates etc?
- 2.3. Do you believe that civil aviation stakeholders are sufficiently involved in the rule making process of EASA?

- 2.4. Are you satisfied with the degree of cooperation with third country Safety Authorities?
- 2.5. How would you see the current bilateral agreement with the United States FAA developing in the years up to 2020?
- 2.6. Are there lessons to be drawn from the FAA's role, functions and management of safety that could usefully be applied to Europe's safety system?

3. GOVERNANCE ISSUES

- 3.1. There is a complex infrastructure and a multiplicity of relations among the various European institutions that have a responsibility for civil aviation safety. Would you consider it desirable to restructure the institutional architecture of Europe's civil aviation safety system? If yes, in what way?
- 3.2. In any such new institutional architecture, what would be the future role of the National Aviation/Supervisory Authorities (NAAs/NSAs)?
- 3.3. With or without any institutional restructuring of Europe's civil aviation safety system, do you consider that modifications to the Basic Regulation could yield efficiencies and improved safety levels? Please identify the modifications that you would like to see.

4. HUMAN RESOURCES

- 4.1. Do you think that the EASA system is adequately staffed to enable it to fully execute its present and prospective functions and responsibilities?
- 4.2. Do you share the European Parliament's view that no extra responsibilities should be assigned to EASA without ensuring the necessary resources or, if no increase in staffing is possible, without reduction of some other tasks?
- 4.3. Are the present recruitment procedures, as laid down in EU Regulation, appropriate in the context of a continuing and future need to recruit high level expert staff?
- 4.4. Should EASA increase or decrease its outsourcing of certification tasks to NAAs and/or Qualified Entities other than NAAs?

5. FINANCES

- 5.1. Do you think that the EASA system has adequate financial resources to enable it to fully execute its present functions and responsibilities as required in Regulation 216 of 2008?
- 5.2. How in your view can EASA's financing be guaranteed on an adequate, predictable and stable basis in the years up to 2020 in the context of foreseeable constraints on public budgets?

- 5.3. Can you suggest innovative ways to raise alternative sources of financing for EASA's activities?
- 5.4. In your view are EASA's fees and charges, imposed under current rules, fair and proportionate to services rendered? What impact do you believe they have on the competitiveness of the European air transport industry?

Additional questions which were addressed only to EASA Member States, NAAs/NSAs and the European Commission

6. Should environmental responsibilities, beyond establishing certification standards, be included in the Agency's remit?
7. Should civil aviation security become a responsibility of EASA?
8. Do you believe that Regulation 216 of 2008 adequately reflects the obligations of the different actors in the EASA system in relation to moving towards a risk-based aviation safety system?
9. In any transition to a fully integrated system, what tasks, transfer of funding, realignment of institutional responsibilities among those responsible at present for safety of ATM/ANS and Aerodromes would be required? How can potential gaps and overlaps be avoided?
10. Some ICAO safety audits of NSAs have revealed a level of non-compliance with ICAO Standards. Would you like to comment on the possibility of aligning EASA's rules and ICAO's standards?
11. Independent of any answer to question 3.1, would it be useful to review the relationship between EASA and the NSAs to ensure avoidance of duplication and promote optimal safety oversight combined with best use of available resources?
12. Would you see value in reviewing the powers, role and composition of the Management Board?

Annex 3

List of INTERVIEWEES

Andre Auer	Chief Executive, Joint Aviation Authorities (JAA) (2004–2009)
Charles Champion	EVP Engineering, Airbus SAS
Maxime Coffin	EASA MB Deputy Chairman (2009 – 2013)
Steve Creamer	Director of the FAA's Europe, Africa and Middle East regional office
Luis Fonseca de Almeida	Regional Director of the ICAO EUR/NAT Office
Patrick Goudou	EASA Executive Director (2003 – 2013)
Capt. Fran Hoyas	IFALPA, Industrial Committee Chairman
David McMillan	Director General EUROCONTROL (2008 – 2012)
Gunther Matschnigg	IATA Senior Vice President, Safety and Flight Operations
Bo Redeborn	Principal Director ATM, EUROCONTROL
Matthias Ruete	Director General, DG MOVE, European Commission
Salvatore Schiacchitano	Executive Secretary, European Civil Aviation Conference (ECAC)
Michael Smethers	EASA MB Chairman
Tim Steeds	Director of Safety & Security at British Airways Plc

Annex 4

Overview of the EASA System

Establishment of EASA competencies

Legal basis Reg. (EC) No 1592/2002 - Initial/Continuing Airworthiness

Starting operation: September 2003

Standardisation: Reg. (EC) No 736/2006

SAFA coordination: Reg. (EC) No 768/2006

1st Extension: April 2008 – Reg. (EC) No 216/2008)
Air operations, Flight crew licensing and Aero Medical centres

2nd Extension: October 2009 (Regulation (EC) No 1108/2009)
Air Traffic Management and Aerodromes

T/C Operators 2014

See details in Table 1

Sharing of roles in the EU Aviation Safety System

Legislative Role ➡ Commission, assisted by EASA

Executive Role ➡ NAA, assisted by EASA, or directly EASA for some tasks *(when the legislator decides this is more convenient for the whole EU system)*

Monitoring Role ➡ Commission, assisted by EASA

See details in Table 2

Sharing of certification tasks

- EASA is supporting the EU Commission in its legislative and monitoring roles
- EASA also exercises independent executive role as certifying authority for certain tasks
- EASA+ National Aviation Authorities together are covering all certification needs for the whole EASA civil aviation system
- A clear separation of certification tasks between EASA and National Aviation Authorities has been defined

See details in Table 3

Table 1

Chronology of EASA involvement vs. main EC/EU Regulations					
Reg. (EC/EU)	Subject	EASA rulemaking		Reg. entry into force	EASA as CA start
		start	end		
1592/2002	Basic Regulation – Initial/ Continuing Airworthiness	-	-	27.09.2002	w/IR
1702/2003	Initial Airworthiness – Part 21	-	01.09.2003	28.09.2003	28.09.2003
2042/2003	Continuing Airworthiness – Part M, 145, 66, 147	-	01.09.2003	29.11.2003	29.11.2003
488/2005	EASA fees and charges	n/c	n/c	02.04.2005	01.06.2005
736/2006	EASA Standardisation Inspections – Initial/Continuing Airworthiness	n/c	n/c	01.06.2006	01.08.2006
768/2006	SAFA – Collection and exchange of data, EASA central coordination	n/c	n/c	09.06.2006	01.01.2007
216/2008	Repealing Basic Regulation – 1 st extension to Air Crew/ Flight OPS	>01.01.2004	16.12.2004	08.04.2008	w/IR
1108/2009	Amending Basic Regulation – 2 nd extension to Aerodromes, ATM/ANS	25.01.2006	17.04.2008	13.11.2009	w/IR
805/2011	Air Traffic Controllers – Licences, Training organisations	04.12.2009	28.05.2010	31.08.2011	31.08.2011
1034/2011	ATM/ANS – Safety oversight	04.12.2009	28.05.2010	28.10.2011	28.10.2011
1035/2011	ATM/ANS – ANSP certification	04.12.2009	28.05.2010	28.10.2011	28.10.2011
1178/2011	Air Crew – Part FCL, MED	20.07.2006	14.12.2010	15.12.2011	08.04.2012
90/2012	EASA Standardisation extension to FCL, OPS, SAFA, ATCO, ATM/ANS	n/c	n/c	04.02.2012	04.03.2012
290/2012	Air Crew – Part CC, ARA, ORA	20.07.2006	19.04.2011	25.04.2012	08.04.2012
923/2012	SERA – Common rules of the Air	29.09.2010	11.11.2011	23.10.2012	n/a
965/2012	Air Operations – Part ARO, ORO, CAT, SPA	20.07.2006	01.06.2011	28.10.2012	n/a
800/2013	Air Operations – Part NCC, NCO	20.07.2006	01.02.2012	25.08.2013	n/a
not yet issued	Air Operations – Part SPO	20.07.2006	16.04.2012	not yet defined	n/a
not yet issued	Third Country Operators	05.05.2007	26.11.2012	not yet defined	not yet defined
not yet issued	Aerodromes – Part ADR.AR, ADR.OR, ADR.OPS	18.06.2010	05.02.2013	not yet defined	n/a
not yet issued	Alignment of the EASA and SES frameworks through the SES+ initiative	<01.09.2012	17.05.2013	not yet defined	n/a

Legend: CA: Competent Authority; n/c: not an EASA rulemaking task; w/IR: waiting for Implementing Regulations; n/a: not applicable to EASA as CA

Table 2

EASA, the European Commission and Member States Sharing of duties and responsibilities i.a.w. Reg.(EC) 216/2008			
Task	EASA	European Commission	Member States (MS)
Certification & Oversight	When acting as <i>competent authority</i>: - Issues, renews, amends, limits, suspends or revokes, when necessary: • Type certificates of aeronautical products (aircraft, engines and propellers), parts and appliances (BR art.20), • Permit to Fly (BR art.20), • Organisations' approvals (BR art. 20, 21.1, 22a, 22b), • Third-country operators (TCO) authorisations (BR art.23), and • Certificates of Flight Simulation Training Devices (FSTD) (BR art. 21.2), when all the above products and organisations are falling under its own competence, as defined in Basic Regulation (BR) and its Implementing Regulations (IRs) (See details in Table 3) Funding: Fees & Charges	- Issues decisions on suspension of mutual recognition of certificates, approvals or licenses issued by any issuer (BR art. 11.2),	The <i>competent authorities</i> designated by them: - Issue, renew, amend, limit, suspend or revoke, when necessary: • Type certificates of any other aircraft not under EASA's competence (BR Annex II), • Airworthiness and Noise/ Emission Certificates, and Permit to Fly of aircraft in their national Registry (BR art. 5, 6), • Organisations' approvals, FSTD certificates and personal licences, which fall under their national competence (BR art. 5, 7, 8, 8b, 8c), and • Certification of Aerodromes in their EU territory and relevant equipment, and approval of aerodrome operators (BR art. 8a) (See details in Table 3)
	- Ensures the continuing airworthiness functions associated with products, parts and appliances it certifies (BR art. 20); Funding: Fees & Charges		- React immediately to safety problems which involve products, persons and organisations, even when not under their oversight (BR art.14.1)
	- Assesses individual aircrew Flight Time Specification (FTS) Schemes proposed by MS, when deviating from EASA Certification Specifications (CS) Funding: Fees & Charges	- Issues decisions on acceptance of individual aircrew FTS Schemes deviating from EASA CS, when EASA and MS disagree;	- Approve and grant , when agreed with EASA, individual aircrew FTS Schemes proposed by operators under their oversight, when deviating from EASA CS;
	- Ensures the safety oversight of the Network Management function (Reg.(EU) 1034/2011) Funding: EU subsidy		

Task	EASA	European Commission	Member States (MS)
Certification & Oversight	- Conducts, itself or through NAAs/QEs, investigations and audits associated with its oversight responsibilities (BR art. 55); Funding: Fees & Charges		- Conduct, when accredited, investigations and audits on behalf of EASA on products and organisations under EASA oversight (BR art. 55);
	- Grants exemptions, not repetitive and of limited duration, to the holders of its certificates/ approvals (BR art. 18d); Funding: Fees & Charges	- Issues decisions on repetitive, long-lasting exemptions granted by MS (BR art. 14.5)	Grant exemptions to the holders of their certificates/ approvals (BR art. 14.4);
	- Performs accreditation of NAAs or QEs to allocate, at its discretion, some of its certification/approval tasks (BR art. 13 and Annex V, MB Decision 04.2009); Funding: Fees & charges		Perform accreditation of QEs to allocate, at their discretion, some of their certification/approval tasks (BR art. 13 and Annex V);
	- Proposes financial penalties, if necessary, on holders of its certificates/ approvals (BR art. 25); Funding: Fees & Charges	- Imposes financial penalties on holders of EASA certificates/ approvals, at EASA's request (BR art. 25);	- Lay down financial penalties, if necessary, on holders of their certificates/ approvals (BR art. 68);
	- Implements the SAFA/ SACA programme of ramp inspections on aircraft/crews from third countries and other EU MS (BR art. 10, Reg.(EU) 965/2012), by: • <i>conducting</i> ramp inspections, • <i>collecting</i> all ramp inspection reports, • <i>analysing</i> relevant information on regular basis, • <i>issuing</i> safety priority list of operators/aircraft • <i>developing</i> inspection procedures, • <i>developing</i> training programmes and syllabi for SAFA/SACA inspectors, • <i>approving</i> SAFA/SACA training organisations, if so requested by a MS, and • <i>issuing</i> annual reports on SAFA/SACA system and aggregated results. Funding: EU subsidy	- Exchanges and uses ramp inspections results and analysis for the periodic implementation of Reg.(EC) 2111/2005 <i>(aircraft/operators subject to an operating ban)</i>	- Implement the SAFA/ SACA programme of ramp inspections on aircraft/crews from third countries and other EU MS (BR art. 10, Reg.(EU) 965/2012), by • <i>conducting</i> ramp inspections in their EU territory, • <i>reporting</i> results to operators, their authorities and EASA, • <i>following-up</i> corrective actions • <i>taking enforcement measure</i>, if necessary, including grounding of aircraft, and • <i>approving</i> SAFA/SACA training organisations based in their EU territory

Task	EASA	European Commission	Member States (MS)
Standardisation	- Conducts standardisation inspections of competent authorities (CA) of MS in monitoring the application of BR and its IRs in all above certification and oversight tasks under national competence; - Conducts inspections of undertakings under CA oversight, - Issues reports to the inspected MS and Commission following such inspections, and - Ensures the following-up of corrective actions implemented by the inspected MS (BR art.24.1, 54, 55; Reg.(EC) 736/2006; next Reg.(EU) 628/2013) Funding: EU subsidy	- May take measures in case of failure of a MS in implementing corrective actions, such any of the following: • <i>requesting</i> further clarifications, • <i>requiring</i> the Agency to perform ad-hoc inspection, • <i>initiating</i> the art.11.2 procedure for suspension of mutual recognition, • <i>initiating</i> infringement procedure against the MS (Reg.(EC) 736/ 2006; next Reg.(EU) 628/2013)	- Submit to inspections and ensure that persons/ bodies concerned do so as well - Assist EASA officials during inspections (BR art. 54, 55)
Rulemaking	- Issues opinions addressed to the Commission (on essential requirements of BR and preparing drafts of IRs); - Assists the MS in the application of the IRs by issuing: • <i>Certification Specifications (CS)</i>, • <i>Acceptable Means of Compliance (AMC)</i> and • <i>Guidance Material (GM)</i>; - Ensures appropriate consultation during the development of all the above (BR art. 19, 52) Funding: EU subsidy	- Prepares and submits to the EP and Council proposals for basic principles, applicability and essential requirements of BR and - Adopts the IRs. (EU Treaty)	- Act as consultative bodies, by designating experts who take part in rulemaking activity (BR art. 52)
Safety Analysis	- Gathers and analyses information acquired from inspections or through the information network of MS and Commission, and - Publishes an annual safety review; (BR art. 15.4) - Protects the source of information (BR art. 16) Funding: EU subsidy	- Exchanges and disseminates to any interested party any safety-related information and related to the application of the BR and its IRs (BR art. 15.1, 15.2) - Protects the source of information (BR art. 16)	- Exchange with the Commission and EASA any safety-related information and related to the application of the BR and its IRs (BR art. 15.1); - Protect the source of information (BR art. 16)

Task	EASA	European Commission	Member States (MS)
International Relations	- Cooperates with third country authorities and international organisations through working arrangements, subject to prior Commission's approval; - Assists the Commission in negotiating bilateral agreements with third countries for harmonisation of rules and mutual recognition of certificates; - Assists the MS to respect their obligations under Chicago Convention (BR Art.27) Funding: EU Subsidy	- Gives prior approval to EASA for working arrangements. (BR Art.27)	- Cooperate with third country authorities in the ambit of bilateral agreements; - Fulfil their obligations under Chicago Convention, in coordination and support with Commission and EASA

Table 3

Certifications and Approvals Sharing of tasks i.a.w. existing Implementing Regulations				
Task		Relevance/ Derogation	Competent Authority (CA)	Legal basis
Initial Airworthiness	- Type-Certificate (TC), - Restricted TC, - Supplemental TC (STC), - ETSO Authorisation (European Technical Standard Order)	- Aircraft, or products, parts and appliances installed on aircraft: • <i>registered in a MS</i> • <i>registered in a third country (T/C) and used by an operator, for which a MS ensures oversight of operation</i>	- EASA , in all cases	Reg (EU) No 748/2012 Annex I - Sec. A, Subp. B, E, O
	- Changes to TC and Restricted TC		- EASA, in all cases, or delegated to a: - Design Organisation (DO) for minor changes only	Reg (EU) No 748/2012 Annex I - Sec. A, Subp. D
	- Repair design approval		- EASA, or - TC/ STC/ ETSO Holder in all cases, or delegated to a - DO for minor repairs only	Reg (EU) No 748/2012 Annex I - Sec. A, Subp. M

Task		Relevance/ Derogation	Competent Authority (CA)	Legal basis
Initial Airworthiness	- Design organisation approval (DOA)	If its principle place of business (PPB) is in a non-MS, it may demonstrate its capability, if accepted by EASA, by holding a certificate issued by that State for that product, part or appliance.	- EASA , in all cases	Reg (EU) No 748/2012 Annex I - Sec. A, Subp. J
	- Production organisation approval (POA)		- CA of MS, where is located the PPB, or - EASA , if requested by MS; - EASA , if located in non-MS	Reg (EU) No 748/2012 Annex I - Sec. A, B - Subp. G
	- Production without POA – Letter of Agreement (LoA)		- CA of MS, where is located the PPB , or - EASA , if located in non-MS	Reg (EU) No 748/2012 Annex I - Sec. A, B - Subp. F
	- Certificates of Airworthiness (CofA) - Restricted CofA - Noise Certificates	- Aircraft, or products, parts and appliances installed on aircraft: • <i>registered in a MS</i> • <i>registered in a third country (T/C) and used by an operator, for which a MS ensures oversight of operation</i>	- CA of the MS of Registry	Reg (EU) No 748/2012 Annex I - Sec. A, B - Subp. H,I
	- Permit to Fly - 1 • <i>approval of flight conditions</i>		<i>If related to safety of design:</i> - EASA or delegated to a: - DO appropriately approved. <i>If not related to safety of design:</i> - CA of the MS of Registry or delegated to an: - Organisation appropriately approved for issuing the Permit to Fly (see below)	Reg (EU) No 748/2012 Annex I - Sec. A, B - Subp. P
	- Permit to Fly - 2 • <i>issuance of permit</i>		- CA of the MS of Registry, or delegated to the: - DO, PO, CAMO appropriately approved for issuing the Permit to Fly	

Task		Relevance/ Derogation	Competent Authority (CA)	Legal basis
Continuing Airworthiness	- Continuing airworthiness management organisation (CAMO) approval	For commercial air transport (CAT), the approval shall be part of the air operator certificate (AOC) issued by the competent authority, for the aircraft operated.	- CA of MS where is located the PPB, if approval is not included in an AOC, or - CA designated by the MS of the operator, if approval is included in an AOC, or - EASA , if located in non-MS	Reg (EC) No 2042/2003 Annex I – Sec. A, B – Subp. G
	- Maintenance Programme		- CA of the MS of the operator, or delegated to a: - CAMO appropriately approved by the CA of the operator (CAT) or of Registry	Reg (EC) No 2042/2003 Annex I – Sec. A, B - Subp. C
	- Aircraft airworthiness review certificate (ARC)	Not applicable for aircraft in a MS Registry but operated in a non-MS, when the MS of Registry has transferred oversight responsibility to the non-MS	- CA of the MS of the operator for CAT, or - CA of the MS of Registry, or delegated to a: - CAMO , if appropriately approved	Reg (EC) No 2042/2003 Annex I – Sec. A, B – Subp. I
	- Maintenance organisation approval (MOA)	For large aircraft or for CAT aircraft, must be an Annex II (Part-145) approved maint. organisation (AMO)	- CA of MS, where is located the PPB , or - EASA , if located in non-MS	Reg (EC) No 2042/2003 Annex I – Sec. A, B – Subp. F, or Annex II – Sec. A, B
	- Certificate of release to service (CRS)	Applicable for aircraft and components. For components, is issued as EASA Form 1	Delegated to: - Certifying Staff (C/S) on behalf of an AMO holding a: • <i>Part-66 licence, for aircraft</i> • <i>national qualification, for components</i>	Reg (EC) No 2042/2003 Annex I – Sec. A, B – Subp. H, or Annex II – Sec. A, B
		Applicable only for limited maintenance on privately operated non-complex aircraft ≤ 2730 kg MTOM, sailplanes, powered sailplanes or balloons	Delegated to: - Pilot-owner , holding a valid pilot licence issued or validated by a MS for that aircraft type or rating	Reg (EC) No 2042/2003 Annex I – Sec. A, B – Subp. H,
	- Aircraft Maintenance Licence (AML)	The applicant may be from any country worldwide, at least 18 years old	- CA designated by the MS, to whom a person first applies	Reg (EC) No 2042/2003 ANNEX III – Sec. A, B
	- Maintenance Training Organisation (MTO) approval	Delivering Annex III (Part-66) • <i>basic training</i> • <i>aircraft type training</i>	- CA of MS, where is located the PPB , or - EASA , if located in non-MS	Reg (EC) No 2042/2003 ANNEX IV – Sec. A, B

Task		Relevance/ Derogation	Competent Authority (CA)	Legal basis
Air Crew	- Flight Crew Licence (LAPL, PPL, SPL, BPL, CPL, MPL, ATPL) - Instructor Certificate (FI, TRI, CRI, IRI, SFI, MCCI, STI, MI, FTI) - Examiner Certificate (FE, TRE, CRE, IRE, SFE, FIE)	Required to fly any aircraft operated under the provisions of the BR. It includes associated ratings/ certificates. The applicant may be from any country worldwide, at least 16 years old, or 14 (for sailplanes and balloons), or 18 (for Instructors/Examiners)	- CA designated by the MS, to whom a person applies	Reg (EU) No 1178/2011 Annex I (Part-FCL) Reg (EU) No 290/2012 Annex VI (Part-ARA), Subp. FCL
	- Cabin Crew attestation (CCA)	Applicable to CAT operations	- CA designated by the MS, to whom a person applies, or delegated to: - Organisation appropriately approved for CCA	Reg (EU) No 290/2012 Annex V (Part-CC), Annex VI (Part-ARA),
	- Flight Training Organisation approval (ATO) - Flight Simulation Training Devices (FSTDs) operator approval - Aero-medical Centres (AeMC)		- CA of MS, where is located the PPB , or - EASA , if located in non-MS	Reg (EU) No 290/2012 Annex VI (Part-ARA), Annex VII (Part-ORA)
	- Flight Simulation Training Devices (FSTDs) qualification certification	Used either by ATO or by FSTD operators	- CA of MS, where the PPB of the organisation using the FSTD is located, or - EASA , if the FSTD is: • <i>used by an organisation it has certified, or</i> • <i>used by an organisation approved by a MS but located in a non-MS, or</i> • <i>located in a MS, if so requested by the MS</i>	
	- Aero-medical Examiner (AME) certificate	The applicant may be from any country worldwide	- CA of MS, where the principal place of practice (PPP) of the AME is located, or - CA of MS to which AME applies, when the PPP is located in a non-MS	Reg (EU) No 1178/2011 Annex IV (Part-MED)
	- General Medical Practitioner (GMP) qualification - Occupational Health Medical Practitioner (OHMP) qualification	- GMP may act as AME for LAPL med. certif. only - OHMP only for cabin crew med. assessment	- CA of MS, to which the activity has been notified	
	- Class 1, 2 Pilot medical certificate - LAPL medical certificate - Cabin Crew aero-medical assessment	- Class 1 for PPL, SPL, BPL - Class 2 for CPL; MPL; ATPL	Delegated to: - AeMC , for Class 1, - AeMC/AME , for Class 2 - AeMC/AME/GMP for LAPL - OHMP for CC	

Task		Relevance/ Derogation	Competent Authority (CA)	Legal basis
Air Operations	- Air operator certificate (AOC)	Required for any kinds of commercial air operation, including but not limited to CAT, with aeroplanes and helicopters	- CA of MS, where the PPB of the operator is located	Reg (EU) No 965/2012 Annex II (Part-ARO) – Subp. OPS, Annex III (Part-ORO) – Subp. AOC, Annex IV (Part-CAT)
	- Specific approvals (PBN, MNPS, RVSM, LVO, ETOPS, Dangerous Goods, NVIS, HHO, HEMS)	Applicable both to commercial and non-commercial operators	- CA of MS, where the PPB of a CAT operator is located, or - CA of MS, where a non-commercial operator is established or residing	Reg (EU) No 965/2012 as amended by 800/2013 Annex II (Part-ARO) – Subp. OPS, Annex V (Part-SPA)
	- Acknowledgement of declaration of activities	Applicable to non-commercial air operations with complex (NCC) or other-than-complex (NCO) motor-powered aircraft	<i>For NCC:</i> - CA of MS, where the PPB of the operator, if holding also an AOC, is located, or - CA of MS, where the operator is established or residing <i>For NCO:</i> - CA of MS of Registry, or - CA of MS, if not registered in a MS, where the operator is established or residing	Reg (EU) No 800/2013 Annex II (Part-ARO) – Subp. OPS, Annex III (Part-ORO), Subp. DEC),
ATCO	- Air Traffic Controller (ATCO) licence/ rating/ endorsement - Student Air Traffic Controller licence/ rating/ endorsement	The applicant may be from any country worldwide; 18 years old as student, 21 as ATCO	- CA of MS, designated as National Supervisory Authority (NSA), to which the person applies	Reg (EU) No 805/2011
	- ATCO Training Organisation approval		- CA of MS, designated as NSA, where the its principle place of operation (PPO) or, if any, its registered office is located, unless otherwise provided, or - EASA , if located in non-MS	
ATM/ANS	- Air navigation service provider (ANSP) certificate		- CA of MS, designated as NSA, where its principle place of operation (PPO) or, if any, its registered office is located, or - EASA , for ANSP located in non-MS but serving the EU airspace, or providing pan-European services	Reg (EU) No 1035/2011 Art.3

ACRONYMS

AD	Airworthiness Directive
ADR	Aerodromes
AeMC	Aero-Medical Centres
AFC	Approval of Flight Conditions
AMC	Acceptable Means of Compliance
AME	Aero Medical Examiner
AML	Aircraft Maintenance License
AMO	Approved Maintenance Organisation
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
AOC	Air Operator Certificate
ARA	Authority Requirements in Air Crew IR
ARC	Aircraft airworthiness Review Certificate
ARO	Authority Requirements in OPS IR
ATCO	Air Traffic Controller
ATM	Air Traffic Management
ATO	Approved Training Organisation
ATPL	Airline Transport Pilot's Licence
BASA	Bilateral Air Safety Agreement
BPL	Balloon pilot licence
BR	Basic Regulation
CA	Competent Authority
CAMO	Continuing Airworthiness Management Organisation
CAT	Commercial Air Transport
CAW	Continuing Airworthiness
CC	Cabin Crew
CCA	Cabin Crew Attestation
CEO	Chief Executive Officer
COA	Continuing Airworthiness Organisations
CofA	Certificate of Airworthiness
CPL	Commercial Pilots' Licence
CRE	Class Rating Examiner
CRI	Certification Review Item
CRS	Certificate of Release of Service
CS	Certification Specifications
C/S	Certifying Staff
DGCA	Directors General Civil Aviation
DOA	Design Organisation Approval
EASP	European Aviation Safety Programme
EASp	European Aviation Safety Plan
EC	European Commission
ECAC	European Civil Aviation Conference
ECofA	Export Certificate of Airworthiness
ED	Executive Director
ETOPS	Extended Range Twin Operations
ETSO(A)	European Technical Standard Order (Authorisation)
EU	European Union
EVP	Executive Vice President
FAA	Federal Aviation Administration (USA)
FABs	Functional Airspace Blocks
FCL	Flight Crew Licensing

FE	Flight Examiner
FI	Flight Instructor
FIE	Flight Instructor Examiner
FSTD	Flight Synthetic Training Devices
FTI	Flight Test Instructor
FTS	Flight Time Specifications
GM	Guidance Material
GMP	General Medical Practitioner
HEMS	Helicopter Emergency Medical Service
HHO	Helicopter hoist operation
IATA	International Air Transport Association
IAW	Initial Airworthiness
ICAO	International Civil Aviation Organisation
IFALPA	International Federation of Airline Pilots' Associations
IR	Implementing Regulation
IRE	Instrument Rating Examiner
IRI	Instrument Rating Inspector
JAA	Joint Aviation Authorities
LAPL	Light Aircraft Pilot Licence
LoA	Letter of Agreement
LVO	Low Visibility Operations
MB	Management Board
MCCI	Multi Crew Cooperation Instructor
MI	Mountain Rating Instructor
MNPS	Minimum Navigation Performance Specification
MOA	Maintenance Organisation Approval
MPL	Multi-crew Pilot License
MRB	Maintenance Review Board
MS	Member State
MTO	Maintenance Training Organisation
MTOM	Maximum Take-Off Mass
MTOW	Maximum Take Off Weight
NAA	National Aviation Authority
NCC	Non-Commercial air operations with Complex motor-powered aircraft
NCO	Non-Commercial air operations with Other-than-complex motor-powered aircraft
NextGen	Next Generation Air Transportation System
NSA	National Supervisory Authority
NVIS	Night Vision Imaging System
OHMP	Occupational Health Medical Practitioner
OPS	Air Operations
ORA	Organisation Requirements in Air Crew IR
ORO	Organisation requirements in OPS IR
PBN	Performance Based Navigation
POA	Production Organisation Approval
PPB	Principle Place of Business
PPL	Private Pilot License
PPO	Principle Place of Operation
PRB	Performance Review Board
QE	Qualified Entity
RTC	Restricted Type Certificate
RVSM	Reduced Vertical Separation Minima
SACA	Safety Assessment of Community Aircraft
SAFA	Safety Assessment of Foreign Aircraft

SERA	Standardised European Rules of the Air
SES	Single European Sky
SESAR	Single European Sky ATM Research
SFE	Synthetic Flight Examiner
SFI	Synthetic Flight Instructor
SMS	Safety Management Systems
SPA	Specific Approval
SPL	Sailplane Pilot License
SPO	Specialised Operations
SSP	State Safety Programme
STC	Supplemental Type Certificate
STD	Synthetic Training Device
STI	Synthetic Training Instructor
TC	Type Certificate
TCO	Third Country Operators
TRE	Type Rating Examiner
TRI	Type Rating Inspector
US	United States
WA	Working Arrangement