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accompanying the

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

on investigation and prevention of accidents and incidents in civil aviation

IMPACT ASSESSMENT

{COM(2009) 611 final}
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1. PROCEDURAL ISSUES AND CONSULTATION OF INTERESTED PARTIES

1.1. Context of the Impact Assessment

Lead DG: Directorate-General for Energy and Transport

Agenda planning: This proposal is listed in the Commission's Legislative Work Programme under reference 2009/TREN/004. Preparation of this Impact Assessment (IA) report was assisted by an inter-service steering group created in April 2009 to which all the interested Directorates-General of the Commission were invited to participate. The European Aviation Safety Agency was also regularly consulted in the course of the drafting of this proposal.

This IA analyses different policy options for better efficiency in civil aviation accident investigation and prevention in the European Union (EU).[1] It was prepared to assist the Commission in taking a policy decision as to the need and direction of the revision of Council Directive 94/56/EC of 21 November 1994 establishing the fundamental principles governing the investigation of civil aviation accidents and incidents[2] (Directive 94/56/EC) and Directive 2003/42/EC of the European Parliament and of the Council of 13 June 2003 on occurrence reporting in civil aviation[3] (Directive 2003/42/EC), as envisaged in the Commission Legislative and Work Programme for 2008.[4]

This IA results from the recommendations of the "Group of Experts to advise the Commission on a strategy to deal with accidents in the transport sector" (Group of Experts), which is attached as Annex I,[5] expert studies and reports, consultations with Member States (MS) and interested stakeholders, as well as recommendations addressed to the Commission within the context of the Commission's "Action Programme for Reducing Administrative Burdens".[6] A list of studies, documents and literature used for the purpose of this IA is attached as Annex II.

Data gathered for the purpose of this IA is considered as constituting a good basis for assessing different policy options for the revision of Directive 94/56/EC and Directive 2003/42/EC.

1.2. Ex-Ante Evaluation

The preferred policy option identified in this IA involves mobilisation of certain Community resources. In this respect, this IA meets all the requirements as set out in Article 21(1) of the implementing rules to the Financial Regulation applicable to the general budget of the European Communities, and in accordance with the principle

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1 This IA deals with investigation of accidents in civil aviation only. Investigation of accidents of State aircraft is usually conducted by separate State services, outside the scope of the EU common transport policy.

2 OJ L 319 of 12.12.1994, p.14.

3 OJ L 167 of 4.7.2003, p.23.

4 COM(2007)640 final

5 Final report of the Group of experts to advise the Commission on a strategy to deal with accidents in the transport sector, Brussels 3.7.2006; The Group of experts was established on the basis of the Commission Decision EC/425/2003, OJ L 144 12.06.2003, pp. 10-11

6 The programme was launched in January 2007 as part of the Better Regulation Strategy of the Commission.

of the sound financial management serves as an *ex-ante* evaluation within the meaning of that Article.[7]

1.3. Public consultations

This IA was preceded by consultations with the interested stakeholders, authorities of the MS and the general public. The general principles and minimum standards for consultation of the interested parties by the Commission were respected.[8] The public consultations were opened on the 5th of January 2007 on the "Your Voice in Europe" internet website and closed after 8 weeks, on 2nd March 2007.

The Commission also relied on the results of an external impact assessment study finalised in July 2007 by ECORYS Nederland BV and National Aerospace Laboratory NLR.[9] The study took into account the results of the public consultations on the internet as well as the input from:

(1) A detailed questionnaire distributed directly by the external consultant to a large number of interested stakeholders;

(2) A number of interviews conducted by the external consultant with a limited number of interested stakeholders constituting a representative sample;

The results of the public consultations on the internet and conclusions of the external IA study were presented by the Commission on 31st January and 1st February 2008, during a meeting with the MS authorities and the interested stakeholders.

The input received in the course of the public consultations and the results of the external IA study were taken into account in the analysis of the different policy options presented in this IA.

In total 22 replies were submitted in response to the public consultations on the internet. In addition, 87 replies were submitted in response to the questionnaire sent out by the external consultant. The list of stakeholders and authorities consulted for the purpose of this IA, as well as the summary of responses received are attached as Annexs III and IV. The results of the consultations are also available on the internet.[10] The results of the pubic consultations can be summarised as follows:

(1) All respondents either fully or partially agreed that there are currently shortcomings in civil aviation accident investigation and occurrence reporting in Europe;

(3) A limited number of respondents were of the opinion that no additional legislative action should be taken at the EU level for the time being;

(4) Majority of the respondents argued that it is too early to consider a comprehensive revision of Directive 2003/42/EC and the that focus should be

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7 Commission Regulation (EC, Euratom) No 2342/2002 of 23 December 2002 laying down detailed rules for the implementation of Council Regulation (EC, Euratom) No 1605/2002 on the Financial Regulation applicable to the general budget of the European Communities (OJ L 248 16.9.2002, p.1.)

8 Communication from the Commission Towards a reinforced culture of consultation and dialogue - General principles and minimum standards for consultation of interested parties by the Commission, Brussels 11.12.2002, COM(2002)704

9 Impact Assessment on the modification of Directives 94/56/EC and 2003/42/EC (Framework Contract for Ex-ante evaluations and Impact Assessments, TREN/A1/46-2005), Final Report, Rotterdam 20 July 2007 (not available on the internet);

10 http://ec.europa.eu/transport/air/consultations/2007_03_02_directive_1994_56_en.htm

on improving the efficiency of the regulatory framework for civil aviation accident investigation;

(5) Majority of all groups of respondents, with the exception of the National Safety Investigation Authorities (NSIAs), favoured a policy option whereby a common regulatory framework and a set of central functions for accident investigation would be established at the EU level;

(6) NSIAs favoured a revision of the current regulatory framework for civil aviation accident investigation, while at the same time being of the opinion that improved efficiency could be achieved through better coordination and promotion of voluntary cooperation;

(7) Opinions varied considerably as to the added value of a single European safety investigation authority. Most of the respondents representing MS authorities indicated that this policy option is not feasible in the current situation, whereby some argued that it could be a good option for the future. On the other side, majority of the respondents representing the manufacturing industry favored this policy option;

1.4. Impact Assessment Board

The draft of this IA was submitted to the Impact Assessment Board (the Board) for its opinion on 24 June 2009. The Board requested resubmission of the report and made a number of recommendations for improvement. A revised version of the IA report was submitted to the Board on 20 July. The Board issued its second opinion on the 26 August 2009.

This IA takes into account the recommendations of the Board expressed in both its opinions. In particular, following re-assessment of the costs and benefits involved in the implementation of all the policy options originally proposed, as well as the analysis of the legal status and functions of the various organisational structures considered, this IA advocates the establishment of a "European Network of Civil Aviation Safety Investigation Authorities". This policy option relies on promotion of voluntary cooperation and does not envisage establishment of any new Community bodies. It allows meeting the envisaged policy objectives in a proportionate and cost-efficient manner.

2. BACKGROUND – AIR SAFETY AND ACCIDENT INVESTIGATION

2.1. Air Safety in the EU

Air transport in the EU can be considered as one of the safest forms of travel. Thanks to the concerted efforts of the regulators and the industry, the average rate of fatal accidents between 2001 and 2008 and involving transport category aircraft registered in the EU MS (plus Norway, Iceland, Liechtenstein and Switzerland[11]) decreased to 3.6 per 10 million flights.[12] This is a good level of safety in global terms but still inferior when compared to regions such as North America or East Asia.

In 2008 there were about 1220 accidents reported to the European Aviation Safety Agency (EASA) and involving civil aircraft registered in the EU/EEA/EFTA Member States – vast majority of them accidents of small general aviation aircraft

[11] Hereinafter referred to as EEA/EFTA MS (European Economic Area/European Free Trade Association)

[12] EASA, Annual Safety Review 2008, http://www.easa.eu.int/ws_prod/g/g_sir_review.php

below 2.250 kg MTOM.[13] If only bigger aircraft of MTOM above 2.250 kg are taken into account, the average annual number of accidents involving civil aircraft registered in the EU/EEA/EFTA Member States in the period 1997 – 2008 could be estimated at 72.

Figure I: Accidents of EU/EEA/EFTA registered aircraft of MTOM over 2.250 kg

	CAT Aeroplanes	***CAT Helicopters***	***GA/AW Aeroplanes***	***GA/AW Helicopters***	***Total***
1997–2006 (avg)	32 *(avg)*	8 *(avg)*	22*(avg)*	10 *(avg)*	72 *(avg)*
2007	37	7	18	12	74
2008	35	8	24	8	75

Source: European Aviation Safety Agency, Annual Safety Review 2008

However, in the context of the increasing complexity of the European aviation market and constant traffic growth, which is expected to double by 2030 compared to 2007 figures,[14] there are concerns that the number of accidents may increase.[15]

Also, beyond the challenges that we are facing in the EU, Community operators are exposed to increased safety risks when operating to regions with underdeveloped aviation infrastructure or deficient regulatory frameworks. Reports of the International Civil Aviation Organisation (ICAO) indicate that the average worldwide level of implementation of international safety standards in civil aviation is estimated at only 57%.[16] The EU considers that at least 12 non-EU countries do not have the capacity necessary to ensure proper safety oversight in accordance with their obligations under the Convention on International Civil Aviation[17] (Chicago Convention).[18]

Safety therefore can never be taken for granted and constant effort is needed to maintain its high level in the constantly changing operational and economic context of the global air transport industry. In this respect the Singe European Sky II was launched by the Commission and the remit of EASA and of Community legislation was recently extended to safety aspects of aerodrome operations and provision of air navigation services and air traffic management (ANS/ATM)[19]. By 2012, the EU will also adopt a comprehensive set of implementing rules on licensing of flight crews and safety of air operations.[20] The EU is also actively engaged in strengthening

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13 Maximum Take Off Mass (the heaviest weight at which the aircraft has been shown to meet all the airworthiness requirements applicable to it)

14 Challenges of Growth 2008, Eurocontrol, Air Traffic Statistics and Forecasts http://www.eurocontrol.int/statfor/public/subsite_homepage/homepage.html

15 Report of the High Level Group for the Future European Aviation Regulatory Framework, Brussels, July 2007 (http://ec.europa.eu/transport/air/doc/hlg_2007_07_03_report.pdf)

16 Commission's analysis of the ICAO Universal Safety Oversight Audit Programme (USOAP) reports (10.08.2009);

17 Convention on International Civil Aviation, signed in Chicago on 7 December 1944, ICAO Doc. 7300/8

18 List of airlines subject to operating restrictions: http://ec.europa.eu/transport/air-ban/list_en.htm

19 Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - Single European sky II: towards more sustainable and better performing aviation, Brussels, 25.6.2008, COM(2008) 389 final

20 Regulation (EC) 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

aviation safety oversight at an international level, notably through a regular dialogue with ICAO and technical cooperation projects with third countries.

2.1.1. Social and economic costs of air accidents

No matter what transport mode, accidents always reduce confidence in the safety of the transport system. They can lead to death or injury, cause environmental damage, and likely to have serious commercial and financial consequences. They can also lead to civil or criminal litigations and affect professional careers.

It is difficult to precisely quantify the cost of air accidents in the EU due to lack of comprehensive studies in this respect. A study conducted in 2006 by the Australian Department of Transport and Regional Services concluded that the estimated cost of each fatality occurred in civil aviation in 2004 in Australia was in the magnitude of $2.17 million (€1,56 million).[21] Research undertaken in the past in the EU[22] resulted in similar values of €1–2 million for the Value of Statistical Life (VOSL[23]). Thus, the order of magnitude for the VOSL lost in air accidents in Europe in the period 1997 – 2008 (accidents of civil aircraft registered in the EU/EEA/EFTA MS with a MTOM above 2.250kg) can be estimated at €276 million per annum (Figure II).

Figure II: Number of fatalities involved in accidents of EU/EEA/EFTA registered aircraft with MTOM above 2.250 kg.

	CAT Aeroplanes	***CAT Helicopters***	***GA/AW Aeroplanes***	***GA/AW Helicopters***	***Total***
1997–2006 (avg)	106 *(avg)*	12 *(avg)*	17 *(avg)*	6 *(avg)*	141 *(avg)*
2007	26	7	8	11	52
2008	162	4	22	5	193

Source: European Aviation Safety Agency, Annual Safety Review 2008

2.2. The need for independent accident investigation and occurrence reporting

Independent investigations of accidents are essential in the drive to improve transport safety. Analysis of the circumstances of accidents leads to recommendations being made to prevent these dramatic events from re-occurring.

Accidents rarely result from a single failure but rather from a combination of events - for example, an error in maintenance that causes a failure in flight that a member of the flight crew then responds to incorrectly. In other words, accidents result from a chain of events that make them difficult to analyze but also provide multiple

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repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.03.2008, p. 1.)

21 Cost of Aviation Accidents and Incidents, Bureau of Transport and Regional Economics report 113, Commonwealth of Australia 2006.

22 Impact Assessment Guidelines, European Commission

23 The VOSL research method does not measure the value of life per se, which is priceless and cannot be monetised. Instead it puts a monetary value on the willingness of individuals to accept slightly higher or lower level of risk.

opportunities to prevent them. If any link in the fatal chain is removed than the accident can be avoided.[24]

Thus, beyond accident investigation, the crucial element in prevention of accidents is open reporting and careful analysis of even the smallest incidents, failures and other occurrences in daily operations which may indicate the existence of serious safety hazards, and which if not corrected may lead to subsequent accidents.

2.2.1. Organisation of accident investigation and the parties involved

Due to international character of civil aviation, involvement of many States in accident investigation is a common situation, and the success of the process depends on the ability of all the States concerned to cooperate efficiently.

Unless the conduct of the investigation was delegated, the State of Occurrence[25] will institute the investigation and its NSIA will appoint the investigator-in-charge (IIC), responsible for the overall supervision of the investigation. The IIC will rely on the teams of experts in various areas of expertise. Each team will collect data related to its domain under the supervision of the IIC. The representatives from foreign countries (in particular the State of Design[26], Registry[27], Manufacture[28] and Operator[29]) will also participate in the investigation by appointing their "accredited representatives" who may be accompanied by technical advisors, in particular from the airline, design organisation, manufacturer or a foreign aviation authority as appropriate (Figure III).[30] Other States having an interest in the investigation may also participate on a case by case basis.[31]

Although organisation of accident investigation may vary in detail from State to State, the process is usually structured along the three main phases. In the first phase the investigation team conducts examinations at the crash site. After the on-scene examination of the wreckage is completed further studies and examinations may be undertaken, including the read-outs of the flight recorders ("black boxes"), reconstruction of a part of the wreckage, autopsies, simulations and the overview of

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24 One of the best known concepts of accident causation in complex organisations as employed in civil aviation (or any other complex system) accident investigation was developed in 1997 by Professor James T. Reason. According to this model, accidents require the coming together of a number of enabling factors — each one necessary, but in itself not sufficient to breach system defences. Because complex systems such as aviation are extremely well-defended, single-point failures are rarely consequential in aviation (Reason, J.T. Managing the risks of organizational accidents, Aldershot 1997; Safety Management Manual (SMM), ICAO Doc. 9859, Second Edition 2009 Montreal).

25 The State in the territory of which an accident or incident occurs (Annex 13 to the Chicago Convention)

26 The State having jurisdiction over the organisation responsible for the type design (Annex 13 to the Chicago Convention)

27 The State on whose registry the aircraft is entered (Annex 13 to the Chicago Convention)

28 The State having jurisdiction over the organisation responsible for the final assembly of the aircraft (Annex 13 to the Chicago Convention)

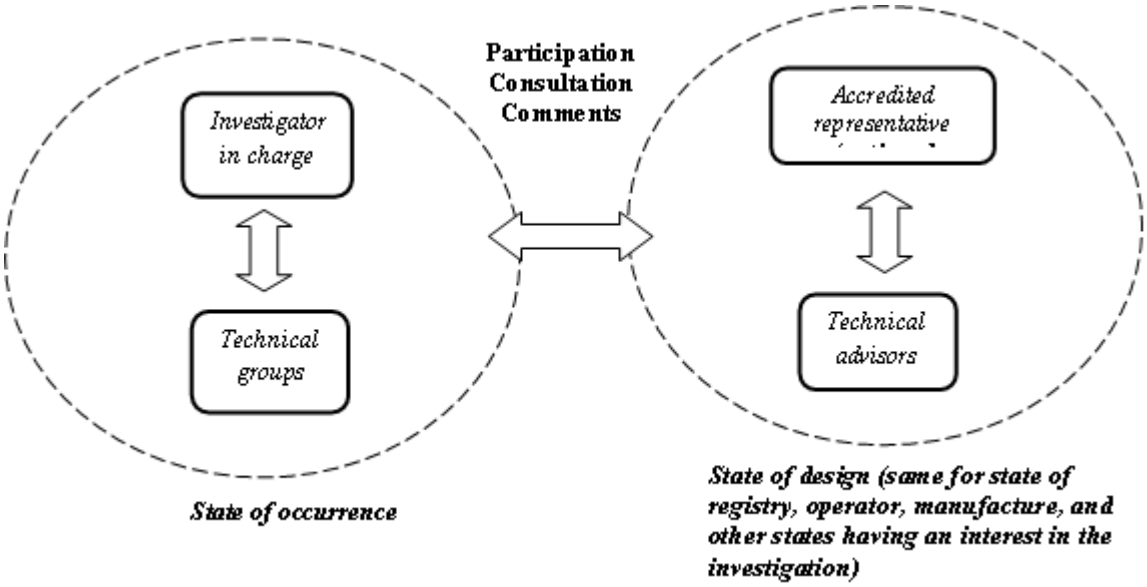
29 The State in which the operator's principal place of business is located or, if there is no such place of business, the operators permanent residence (Annex 13 to the Chicago Convention)

30 According to Annex 13 to the Chicago Convention, "an accredited representative is a person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State".

31 Annex 13 to the Chicago Convention stipulates that any State which on request provides information, facilities or experts to the State conducting the investigation shall be entitled to appoint an accredited representative to participate in the investigation. The Annex also envisages that any State which has a special interest in an accident by virtue of fatalities or serious injuries to its citizens shall, upon making a request to do so, be permitted by the State conducting the investigation to appoint an expert.

the overall context of the event. Once all the data is gathered, different scenarios are built and analysed to determine the probable cause of the accident. If needed, further studies and examinations are undertaken to collect supplementary data or verify the probability of alternative scenarios.

Figure III: Principal actors in the accident investigation process



Briefings and updates will be given by the ICC as the investigation unfolds. Interim reports may also be published or immediate safety recommendations issued. The investigation is concluded with the publication of the final report, determining the probable cause of the accident and specifying safety recommendations to be acted upon to prevent re-occurrence of similar events in the future.

2.2.2. Role of occurrence reporting in civil aviation

While the role of accident investigation is improvement of safety through analysis of serious events, occurrence reporting aims to improve safety by timely detection of operational hazards and system deficiencies, which if not properly addressed could escalate into much more serious catastrophes in the future.

In practical terms, occurrence reporting are sophisticated systems which call aviation professionals to report, in a protected environment, errors, abnormal events and other irregular circumstances, and which allow to analyse the data collected in order to draw and disseminate safety lessons and identify safety risks.

Occurrence reporting is an essential tool in promotion of organisational safety culture ("Just Culture"), understood as a working environment where *"front line operators or others are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training, but where gross negligence, wilful violations and destructive acts are not tolerated".*[32]

[32] "Just Culture" (JC) Definition and Implementation of a JC Concept, Working Paper (AIG/08-WP/33), presented by France on behalf of the European Community and its Member States by the other Member States of the European Civil Aviation Conference and by EYROCONTROL), Accident Investigation and Prevention (AIG) Divisional Meeting, International Civil Aviation Organisation, Montreal 13 – 18 October 2008.

"Just Culture" in general and occurrence reporting in particular take a system wide approach to accident prevention and recognise that moving beyond blame is essential in enhancing safety in a proactive way – notions which have been confirmed through decades of safety and human factors research.[33]

2.3. Current regulatory framework for accident investigation and occurrence reporting in the EU

2.3.1. Civil aviation accident investigation

Civil aviation, although in existence for a relatively short period of time, when compared to other modes of transport, has well established traditions in accident investigation and occurrence reporting. The obligation to investigate accidents in civil aviation is enshrined in the Chicago Convention, to which all MS are Parties. Detailed standards and recommended practices in this respect, also for occurrence reporting, are defined in Annex 13 to the Convention[34] and the related guidance material.[35]

Recognising the importance of accident investigation, the EU already in 1980 adopted a Directive 80/1266/EEC on cooperation and mutual assistance between the Member States in the field of air accident investigation[36] (which was the first piece of air safety legislation adopted in the Community). The 1980 Directive was subsequently replaced by Directive 94/56/EC. In addition Directive 2003/42/EC on occurrence reporting in civil aviation was adopted in 2003.

By transposing into the Community legislation a number of fundamental principles contained in Annex 13, Directive 94/56/EC significantly contributed to the harmonisation of civil aviation accident investigation in the EU.

Under Directive 94/56/EC MS are obliged to ensure that every accident or serious incident[37] in civil aviation is subject to an investigation by an independent body and that the only purpose of the investigation is to prevent future accidents and not to apportion blame or liability. Investigators have been given additional rights enabling them to carry out their tasks in a more efficient manner and the basic principles concerning publication of reports and dissemination of safety recommendations were established. Summary comparison of Annex 13 and Directive 94/56/EC can be found in Table I below.

Table I: Summary comparison of Annex 13 and Directive 94/56/EC

Issue addressed	Annex 13	Directive 94/56/EC
Scope	Responsibilities of the State leading the investigation and of States participating in the	Focused on situations where a MS is leading the investigation (either as a State of Occurrence, or a State of Registry or

33 For an overview of the "Just Culture" concept see for example: S. Dekker, *Just Culture: Balancing Safety and Accountability,* Ashgate 2008.

34 Aircraft Accident and Incident Investigation", 9th edition, July 2001

35 In particular "ICAO Manual of Aircraft Accident and Incident Investigation" (Doc 9756)

36 Council Directive 80/1266/EEC of 16 December 1980 on future cooperation and mutual assistance between the Member States in the filed of air accident investigation (OJ L 375, 31.12.1980, p.32)

37 For editorial reasons, this IA report refers to investigation of accidents only (unless justified by a specific context). However, the considerations presented are valid also for the investigation of serious incidents and any other incidents if safety lessons are expected to be drawn form the investigation, as defined in Directive 94/56/EC.

	investigation through accredited representatives.	Operator).
Objective of safety investigations	Sole objective - prevention of future accidents and incidents and not to apportion blame or establish liability. Judicial or administrative proceedings to be separate from the safety investigation.	Sole objective – prevention of future accidents and incidents and not to apportion blame or establish liability.
Status of the NSIA	NSIA to have independence in the conduct of the investigation.	MS to ensure the investigation to be carried out by a permanent and independent NSIA. NSIA to be adequately resourced and staffed.
Status of the investigation	NSIA to have unrestricted authority over the conduct of the investigation. IIC to have unhampered access to the wreckage and relevant material. State of Occurrence to recognise the need for coordination between the IIC and judicial authorities. Right of the State participating in the investigation to request protection of evidence pending arrival of its accredited representative. State of Occurrence to protect the evidence and maintain custody of the aircraft and its content for the purpose of the investigation.	Details to be defined by MS in their national legislation. Minimum rights of investigators defined in the Directive (free access to the accident site, wreckage and recorders, right to examine witness etc). Investigators to cooperate with the judicial authorities where appropriate.
Cooperation between the NSIAs	State may delegate the conduct of the investigation (or part of it), to another State by mutual consent. States to cooperate and provide mutual assistance in the investigation.	NSIA allowed requesting assistance from other NSIAs. Assistance to be provided as far as possible free of charge. MS may delegate the carrying out of an investigation to other MS.
Final report	Draft report and other pertinent documentation to be protected by States from unauthorised disclosure. Every state participating in the investigation has the right to comment on the report and to have its comments appended if not taken into account. Report to be issued as soon as possible and preferably within 12 months.	Every investigation subject to a report appropriate to the type of the event. Report to be issued in the shortest possible time and if possible within 12 months.

Safety Recommendations	Safety recommendations to be issued at any stage of the investigation. ICAO should be informed if ICAO documents are involved. States shall inform the issuing NSIA of the preventive action taken (or why no action is taken)	Where appropriate, report should contain safety recommendations. MS to take safety recommendations duly into consideration, and where appropriate act upon them. Safety recommendations should not create presumption of blame or liability.
Protection of safety information	Sensitive safety information to be protected from un-authorised disclosure or use for non-safety related purposes.	Not addressed specifically within the Community context.
Qualifications of investigators	Addressed through guidance material to Annex 13.	Not addressed specifically within the Community context.
Standardisation of NSIAs	Addressed at the general level through the ICAO USOAP programme.	Not addressed specifically within the Community context.

2.3.2. Occurrence reporting in civil aviation

Directive 2003/42/EC, by supporting the creation of safety occurrence reporting systems, significantly contributed to the promotion of "Just Culture" in European civil aviation. Aviation professionals are now obliged to report occurrences in their daily work and provisions have been made to ensure that the information reported can be exchanged and disseminated, so that safety lessons can be learned. The Directive obliges MS to ensure confidentiality of the information, in particular in relation to the identity of the reporter. The Directive also supports and encourages the MS to promote the establishment of voluntary occurrence reporting systems.

Directive 2003/42/EC was supplemented with implementing rules establishing a central repository of information on civil aviation occurrences exchanged in accordance with the Directive[38] and dissemination of the information stored in the occurrence databases[39]. In 2008, over 41 thousands occurrences were stored in the central repository.

3. PROBLEM DEFINITION - THE NEED FOR CHANGE

The Community system for civil aviation accident investigation and occurrence reporting as currently established, functions below optimum efficiency. The current regulatory framework dealing with this subject, i.e. Directive 94/56/EC, which is now already 15 years old, no longer meets the requirements of the Community and the Member States. In particular:

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38 Commission Regulation (EC) 1321/2007 of 12 November 2007 laying down implementing rules for the integration into a central repository of information in civil aviation occurrences exchanged in accordance with Directive 2003/42/EC of the European and of the Council (OJ L 249, 13.11.2007, p.3).

39 Commission Regulation (EC) 1330/2007 of 24 September 2007 laying down implementing rules for the dissemination to interested parties of information on civil aviation occurrences referred to in Article 7(2) of Directive 2003/42/EC of the European Parliament and of the Council (OJ L 295, 14.11.2007, p. 7.)

(1) There is much more divergence in the investigating capacity of the Member States comparing to the situation in 1994. Especially after the recent enlargements of the EU in 2004 and 2007, the investigating capacity is concentrated in a few Member States only;

(2) Aircraft and their systems are becoming increasingly complex, which also means that investigation of aviation accidents requires substantially more diversified expertise and resources than a decade ago;

(3) The EU common aviation market grew substantially both in size (now covering 27 Member States) and complexity in the last decade (emergence of multi-based operators, increasing reliance on outsourcing of maintenance, multinational design and manufacturing), which creates new challenges in safety oversight;

(4) The increase in the size and complexity of the internal aviation market also called for increased responsibility of the Community for aviation safety. The EU institutional and legal framework changed significantly since the adoption of Directive 94/56/EC. Safety standards are now almost exclusively defined at the EU level and the European Aviation Safety Agency, which on behalf of the Member States is responsible for certification of aircraft in the Community, was established in 2002;

(5) The EU and its Member States gained significant practical experiences in application of Directive 94/56/EC. These lessons should be used to strengthen the efficiency of the current regulatory system;

The specific problem areas resulting from the above considerations, and which will be further analysed in this IA report, include:

(1) Lack of a uniform investigating capacity in the EU;

(2) Tensions between safety investigations and other proceedings;

(3) Unclear role of the Community in safety investigations;

(4) Weaknesses in implementation of safety recommendations;

(5) Lack of common standards concerning management of passenger manifests and support to the victims of air accidents and their families;

3.1. To what extent are these problems related to the implementation of the current regulatory framework?

The problems analysed in this IA only to a certain extent derive from the inefficiencies in the implementation of the current regulatory framework. As indicated above, the problem drivers are more of an institutional and structural nature and relate to the fact that major changes in the organisation of the single aviation market took place since the adoption of Directive 94/56/EC. The severity of the problems identified also vary across the EU, as for example some MS may be more affected by lacks in their investigating capacity, while others by tensions between safety investigations and other proceedings.

3.2. Lack of a uniform investigating capacity in the EU

Although the EU as a whole has enough investigating capacity to deal with any major accident in the Community or beyond, the resources available are not used efficiently. Especially the smaller MS lack appropriate means to deal with

investigation of complex accidents. The experience and qualifications of investigators and of the NSIAs is also not uniform across the EU.

Inefficiencies in the use of resources contribute to the difficulty of the NSIAs in meeting the recommended deadlines for closing investigations and publication of final reports. Diverging level in experience and training of investigators also prevents the EU from having a more uniform level of expertise in accident investigation and impacts on the overall quality of safety investigations in some MS. The sharing of resources between the NSIAs, despite some recent improvements in this respect, is still mainly organised on an *ad hoc* basis, which may not be sufficient when a number of accidents occur in the same period of time and necessitate extended simultaneous engagement of a few NSIAs.

From the EU perspective the issue of capacity of NSIA and quality of investigations is important not only to ensure high standards at the level of individual MS but also consistency in the way investigations are conducted across the EU. This is due to the fact that, with the adoption of the common safety standards and establishment of EASA, any deficiencies in Community regulations, certification procedures or oversight practices may have EU-wide consequences.

3.2.1. Problem drivers and evidence

At the time of the adoption of Directive 94/56/EC, the investigating capacity of the EU as a whole used to be much more uniform than it is now. Currently however and especially after the recent enlargements of the EU, the situation is much more diverse and the investigating capacity is essentially concentrated in a few MS only.

The number of investigators in MS varies substantially (from 1 to over 60 depending on the MS[40]). Also, only a very limited number of MS dispose of facilities and equipment for complex technical investigations such as the readouts of "black boxes" or conduct of complex simulations.[41] Especially for smaller MS it is difficult to mobilise the necessary expertise for more complex investigations and to be on par with large manufacturers or operators which can often muster more substantial resources than the local NSIA.

In practice, only MS with big manufacturing industry can justify budgets necessary to maintain a properly staffed and equipped NSIA. For others, it is increasingly difficult to justify any increase in the budget, especially taking into account a relatively limited number of accidents in Europe. A survey conducted by the Commission in 2006 showed that a large number of MS experience difficulties in meeting the recommended deadlines of twelve months for closing a safety investigation.[42]

Although there have been some important improvements in the recent years in this respect, the sharing of resources between the NSIAs is still organised mainly on an *ad hoc* basis. This, combined with a varying exposure of MS to accidents, prevents the EU from building up uniform experience in accident investigation.

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40 Council of European Aviation Safety Investigation Authorities (CIRCA based information bank)

41 *idem*

42 Replies to the questionnaire on the application of Council Directive 94/56/EC of 21 November 1994 establishing the fundamental principles governing the investigation of civil aviation accidents and incidents (presented by the Commission at the meeting of the group of experts on civil aviation accident investigation, Brussels, 8 February 2006)

At the same time, the ongoing technological progress means that aircraft and their systems are becoming increasingly complex, which makes accident investigation an activity requiring much more diversified and specialised skills and equipment than a decade ago.

It has to be also recognised that, with the exception of the ICAO guidance material[43], there are currently no uniform standards in the EU concerning training and qualification of the investigators. This problem was highlighted in the final report of the "Group of Experts", which indicated that *"in particular smaller Member States identify a need for European Union based training for investigators, both on the coordination of training and in relation to training standards"*.[44]

Likewise, the methodology for technical investigations, although based on common principles of Annex 13, is not fully harmonised in the EU. Neither Directive 94/56/EC nor Annex 13 are directly applicable and need to be transposed into the national legal orders of the MS, who are also entitled not to implement certain standards of Annex 13 (not covered by Directive 94/56/EC) and to notify the differences to ICAO accordingly. Last but not least, with the exception of ICAO USOAP audits, there is currently no standardisation program allowing for verification of consistency in implementation of Directive 94/56/EC and Annex 13 by the MS.

The issue of under-optimal use of resources is partially addressed through voluntary cooperation between NSIAs envisaged in the Directive 94/56/EC,[45] and was recently strengthened with the establishment of the Council of European Aviation Safety Investigation Authorities[46] and other dedicated initiatives.[47]

3.3. Tensions between safety investigations and other proceedings

The sole objective of accident investigation and occurrence reporting should be prevention of accidents and incidents. Their purpose should not be to attribute blame or liability and the process should be independent from any other proceedings (criminal, administrative, civil) whose objectives could conflict with this purpose.

At the same time, safety investigations or occurrence reporting should not interfere with the proper administration of justice either and nothing should prevent the judicial or other authorities from carrying out their own investigations, under their own procedural rules and to collect evidence that could serve as a basis for establishing the eventual liability of the persons involved the event. Through these parallel but independent procedures the common objective of protecting human life and delivering justice may be served jointly.

More specifically, independent safety investigations are necessary in particular to:

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43 Training Guidelines for Aircraft Accident Investigators, ICAO Circular 298, June 2003

44 Final report of the Group of experts to advise the Commission on a strategy to deal with accidents in the transport sector, Brussels 3.7.2006; The Group of experts was established on the basis of the Commission Decision EC/425/2003, OJ L 144, 12.06.2003, p. 10-11.

45 Article 6.4 and 6.5 of the Directive

46 The Council constitutes a body coordinating, on a voluntary basis, the activities of the NSIAs of the EU Member States. It is composed of heads of EU NSIAs and chaired by the representative of the Member States currently holding Presidency of the EU.

47 Such as establishment of the "Code of Conduct for civil aviation accident investigation" and the "check-list on assistance", both developed within the framework of the Group of Experts on accident investigation of the European Civil Aviation Conference (ECAC/ACC Group).

– Promote transparency and avoid potential conflict of interests which could affect the findings resulting from the safety investigation (this would be for example the case if a safety investigation authority would be at the same time responsible for rulemaking or certification);

– Identify not only a direct cause of an accident, which will be usually a focus of proceedings that aim to attribute blame or liability, but most importantly the underlying and latent causes which might have contributed to the accident. Safety lessons can only be learned and corrective measures put in place, if all the underlying causes are identified;

– Help families of the victims or the victims themselves to come to terms with the suffering by answering the question "what really happened?"

Although the fundamental principle of independent safety investigations is widely accepted and recognised by both international[48] and Community[49] law, certain aspects of this principle are far from being implemented in the EU in a uniform manner. There are tensions between the NSIAs and judicial authorities across the Community and the independent status of accident investigation and especially protection of sensitive safety information collected in the course of the investigation cannot be guaranteed in all MS. Although some of the MS managed to develop legislation or certain arrangements to deal with this issue[50], due to international character of safety investigation, their NSIA may be nevertheless affected by such tensions when participating in investigation in other MS through their accredited representatives.

3.3.1. Problem drivers and evidence

The drivers concerning this particular issue are complex and concern both legal and cultural aspects. This IA focuses on the drivers related to the transposition of Annex 13 into Community law, and the way provisions of Annex 13 and Directive 94/56/EC are applied in practice by the MS authorities. Coordination between the authorities involved in accident investigation, gathering and sharing of evidence and protection of sensitive safety information collected in the course of an investigation or through occurrence reporting systems, need to be mentioned in particular in this context.

Whenever a serious accident occurs, at least two separate investigations will normally have to be carried out, one to determine the direct and underlying causes of the accident, the other to determine whether there is sufficient evidence to justify criminal proceedings against any of the parties involved[51]. Although objectives of these proceedings will be different and they will be carried out by separate

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48 Standard 3.1 and 5.4 of Annex 13

49 Article 1, 4(3) and 6(1) of Directive 94/56/EC

50 In the UK for example a memorandum of understanding between the Crown Prosecution Service (CPS) and the Air Accidents Investigation Branch (AAIB), the Marine Accident Investigation Branch (MAIB) and the Rail Accident Investigation Branch (RAIB), sets out the principles for liaison between the CPS and the AIBs. The aim is to ensure effective investigation and decision making processes while maintaining the independence of all parties and reinforcing the role of the AIBs as the guardians of public safety when investigating transport accidents and incidents (http://www.aaib.gov.uk/cms_resources/MOU%20AIB-CPS.pdf)

51 Increasingly in recent years, this may be paralleled by investigations to support civil proceedings to apportion liability.

authorities, it is in practice very difficult to ensure a full separation between them and these two proceedings will have to interact with each other to a certain extent.

The experience of the Community shows that these interactions may be a source of tensions that can negatively affect the efficiency of safety investigations.

3.3.1.1. Cooperation between the authorities involved in accident investigation

Various authorities involved in accident investigation, although conducting separate inquires and pursuing different objectives will always need, while retaining independence within their respective areas of responsibility, cooperate to a certain extent in order to efficiently discharge their obligations. In particular, all authorities will need to gather evidence, including factual information and statements from the parties involved in the accident. They will also need to store and analyse the evidence gathered to draw the necessary conclusions.

Although Directive 94/56/EC defines the broad principles of the status of a safety investigation,[52] including the rights of the investigators to access to the crash site and the relevant evidence, the practical experiences in the application of Directive 94/56/EC show that the uniform implementation of these principles in the EU is far from being satisfactory and may affect safety. Judicial authorities often argue that the obligation to sanction illegal activities supersedes any safety considerations, and that any evidence may and should be used for the purposes of examining liability, in accordance with the principle of the open assessment of evidence. In practice this means that access of the NSIA investigators to the crash site may be hampered or crucial safety evidence seized and not made available or its availability delayed.

The investigation into the crash of Air France Concorde F-BTSC at Gonesse on 25th July 2000 can be given as an example here. The investigation was led by the NSIA of France and the UK NSIA also participated as a joint State of Manufacture. In addition to the technical investigation led by the NSIA, an immediate judicial inquiry was launched, and the French transport minister also convened his own panel of experts to advise him personally. Thus in total three inquiry teams were competing for access to physical evidence, resulting in delays and restrictions in the access to the crash site and material evidence by the safety experts.[53] As another illustration of a potential impact of the lack of proper coordination between the authorities involved in the investigation, the case of the collision at the Milano-Linate Airport in October 2001 can be given (see Case I below).

The safety consequences of the delay in investigations or of lack of access by NSIAs to important evidence may be serious: not complete findings, delays in publication of the final report, inadequate safety recommendations.

Lack of coordination and tensions between the authorities participating in the investigation is recognised by the experts. The "Group of Experts" in particular in its final report recommends addressing "*difficulties and tensions between the safety investigation and judicial investigations*".

On the other side, it has to be recognised that the interests of judicial authorities can be also negatively affected by the lack of appropriate coordination and by giving priority in all the cases to the technical investigation. For example factual

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52 Article 5 "Status of the Investigation" of Directive 94/56/EC

53 Accident on 25 July 2000 at La Patte d'Oie in Gonesse to the Concorde registered F-BTSC operated by Air France, Report by Bureau Enquetes-Accidents, f-sc000725a

information deriving from examinations which cannot be repeated, such as destructive testing of parts of equipment may be in contradiction with the statutory obligation of the judicial investigator to secure and present to the court the best evidence possible. Other examples may involve evidence, which from a technical point of view can be produced only by a NSIA, such as analysis of factual information extracted from a flight data recorder (FDR).

Currently, Directive 95/56/EC does not contain any provisions similar to the ones which can be found in Annex 13 (in particular standard 3.2 and 3.3), which oblige the State of Occurrence to maintain appropriate custody of the evidence and of the accident site.

Case I: Tensions between safety investigations and judicial procedures

On the 8th of October 2001 a Boeing MD-87, registration marks SE-DMA operated by SAS, while on takeoff run on runway 36R of Milano Linate Airport, collided with a Cessna 525-A, registration marks D-IEVX which taxied into the active runway. After the collision the MD-87 hit a baggage handling building. All occupants of the two aircraft as well as four members of the ground staff personnel suffered fatal injuries.

Both safety and judicial inquires were initiated. In the course of the safety investigation the NSIA in charge of the investigation could not receive testimonies from the ground (GND) and tower (TWR) controllers as well as TWR supervisor, as they made themselves unavailable pending the judicial procedure. Transcripts of radio and telephone communications pertaining the incident were obtained from the Magistrate office (audio files on CD), while the original tape was not made available. The NSIA could not test the efficiency of the Cessna ARTEX equipment the transmission of which were not present on the tapes recorded. The equipment has been seized by the Magistrate for the purpose of the criminal inquiry and not made available.[54]

3.3.1.2. Protection of sensitive safety information

Evidence gathered in the course of a safety investigation may be of various nature. Some information will be purely factual, and should be freely shared between all the authorities involved in the investigation in order to avoid duplication of costs and ensure efficient closure of all relevant investigations - be it technical, judicial or administrative.

Some information however will be of much more sensitive nature and its protection from unauthorised disclosure or inappropriate use is of utmost importance. This applies in particular to evidence such as witness testimonies or other statements, accounts and notes taken or received by the NISAs. Availability of such information is crucial in the disclosure of all circumstances of the event and of its causes. Inappropriate use of such evidence may compromise its future availability, as pilots or other aviation professionals may be reluctant to share it with the investigators without having certainty that it will not be later used to blame them. This is a sensitive issue, linked not only with safety considerations but also with the fundamental right of every citizen to a fair trail and prohibition of self-incrimination.

Similar philosophy underpins occurrence reporting systems under Directive 2003/42/EC, which sole objective is to detect at the earliest possible stage existence of safety hazards and prevent them from escalating into accidents. The underlying principle here is that public safety is best served by sharing and analysing safety

54 Final Report of the Agenzia Nazionale per la Sicurezza del Volo of 20 January 2004, Accident involving Aircraft: Boeing MD-87 registration SE-DMA and Cessna 525-A, registration D-IEVX, Milano Linate Airport October 8, 2001.

information and using it for accident prevention purposes only and not for punishing or prosecuting those who, in good faith, wish to share their mistakes.

The consequences of such inappropriate use of sensitive safety information in the context of accident investigation were illustrated in an example given above (see Case I above). The considerations presented are however valid also, and maybe most importantly, in respect of statements made by aviation professionals in the framework of occurrence reporting systems (see Case II below as an example).

Case II: Managing safety and accountability – impact on occurrence reporting

On December 10th 1998 an incident occurred at Schiphol (Amsterdam) Airport in which a Delta Airlines Boeing 767 aborted its take-off roll when the pilots observed a towed Boeing 747 crossing the runway in front of them. The incident investigation report concluded that the incident happened, *inter alia*, as a result of a misinterpretation by the Assistant Controller of the actual position of the tow-combination when radio-contact was first established.

In December 2000, almost two years after the date of the incident, the Dutch aviation prosecutor decided to formally charge the Coach/Supervisor, the Trainee and the Assistant Controller with "the provision of Air Traffic Control in a dangerous manner, or a manner that could be dangerous, to persons or properties". The judge ruled that the assistant controller was not guilty, but that both the trainee and the coach/supervisor were. More than a year later, the case appeared before a higher court. The court found all three suspects guilty of their crime, it did not, however, impose a sentence. The judge had found legal room for what seemed to be a compromise, by treating the case as an infringement of the law, as opposed to an offence.

Over the years that the legal proceedings went on, the number of incident reports submitted by controllers dropped by 50%.[55]

What are the drivers of the issue? The divergence of judicial cultures and regulatory frameworks of the MS definitely plays a role in this respect. However, this IA report argues that the problem is amplified by the lack of common principles established in this respect in Community law.

Contrary to the requirements of Annex 13 (Standard 5.12), Directive 94/56/EC does not contain any provisions concerning protection of evidence gathered in the course of the investigation, in particular of witness evidence and other statements, accounts and notes taken or received by the NISAs from use for non-safety related purposes. Annex 13 is also far from being implemented in a uniform manner in the EU in this respect. Most of the differences filled by the MS with ICAO in respect of Annex 13 concern implementation of Standard 5.12 dealing with protection of sensitive safety information.[56] FDR and CVR are to certain extent protected on the basis of specific provisions contained in the "EU-OPS regulation".[57]

Similarly to the previous point, there seems to be a consensus amongst the experts that this is an issue requiring a closer attention of the Community. The "Group of Experts" in its final report recommends: *"to introduce legislative protection from*

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55 Case analysis on the basis of: "Just Culture Material for Interfacing with the Judicial System, Eurocontrol 2008"

56 In accordance with Article 38 of the Chicago Convention, Member States can decide not to implement certain standards of Annex 13 and to notify differences to ICAO (the differences notified cannot be in contradiction with the provisions of the Directive 94/56/EC, as this would constitute a violation of the Community law)

57 Council Regulation (EEC) No 3922/91 of 16 December 1991 on the harmonization of technical requirements and administrative procedures in the field of civil aviation (as amended), OJ L 373, 31.12.1991, p. 4 (the "EU-OPS" regulation)

disclosure for confidential documents listed in Chapter 5.12 of Annex 13 to the Chicago Convention".

Similarly, the obligation to report occurrences established under Directive 2003/42/EC is not sufficiently balanced by the protection of the information contained in the reports from use in non-safety related proceedings.[58] In particular Directive 2003/42/EC does not establish clear principles or guidance defining under which conditions such information could be disclosed to the judicial authorities.[59] This may discourage aviation professionals from open reporting of occurrences (which may constitute potentially self-incriminating information), and thus reduce the opportunities for the EU aviation community to collectively learn from mistakes.[60]

Last but not least, there has been an important precedent recently in the Community law as far as protection of sensitive safety information gathered through accident investigation is concerned. The newly adopted Directive 2009/18/EC establishing the fundamental principles governing the investigation of accidents in the maritime transport sector[61], envisages common provisions concerning protection of sensitive safety information, largely inspired by the language of Standard 5.12 of Annex 13. As this is an issue of a horizontal nature, similar principles should apply to safety investigations in all transport modes.

3.4. Unclear role of the Community in safety investigations

An issue of fundamental importance to be addressed in this IA concerns the role of the Community in accident investigation. This question goes beyond problems related to the uniform implementation of Directive 94/56/EC and derives from the fact that major institutional and regulatory changes took place in the Community since the adoption of Directive 94/56/EC.

A common set of directly applicable safety legislation was established by the EU, covering initial and continuous airworthiness, pilot licensing, flight operations (of both Community and third country operators)[62], and was recently extended to Air Traffic Management/Air Navigation Services and safety aspects of aerodrome operations.[63] In addition EASA, which carries out on behalf of the MS the functions and tasks of the State of Design, Manufacture and Registry when related to design approval, as specified in the Chicago Convention and its Annexes, was established in

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58 *c.f. 15 ("The level of incident reporting, analysis and transparency of the safety system varies widely across Europe. As a result, in some places, it is difficult to assess the overallsafety performance achieved and to propose actions toimprove safety. One impediment is that the judicial codes of some states discourage or inhibit open reporting of incidents"),* p.31

59 Directive 2003/42/EC in Article 8(5) only stipulates that its provisions shall apply without prejudice to the national rules related to access to information by judicial authorities.

60 Legal and Cultural Issues in relation to ATM Safety Occurrence Reporting in Europe, Report Commissioned by the Performance Review Commission, Eurocontrol, September 2006; Similarly "Report of the High Level Group for the future European Aviation Regulatory Framework (*c.f. 15*)

61 Directive 2009/18/EC of the European Parliament and of the Council of 23 April 2009 establishing the fundamental principles governing the investigation of accidents in the maritime transport sector and amending Directives 1999/35/EC and 2002/59/EC (OJ L 131, 28.5.2009, p.114).

62 Regulation (EC) 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, and repealing Council Directive 91/670/EEC, Regulation (EC) No 1592/2002 and Directive 2004/36/EC (OJ L 79, 19.03.2008, p. 1)

63 Not yet published

2002. [64] The role and responsibilities of the Community in safeguarding civil aviation safety has thus increased significantly in the past decade.

The changes in question affect the overall division of responsibilities between the MS and the Community in civil aviation safety. Despite the efforts of the Agency and NSIAs, the consequences of these changes were not so far fully reflected in the way accident investigation in the Community is organised. The relationship between EASA and NSIAs is not defined, neither as concerns representation of EASA in accident investigation nor in respect of exchange of important safety information between the Agency and NSIAs, necessary to reveal all circumstances of accidents or occurrences and to take appropriate safety actions. This creates unacceptable safety risks, in particular since the Agency is responsible for certifying aircraft registered in the Community – an issue which was recently confirmed by an audit of the International Civil Aviation Organisation (ICAO).

3.4.1.1. Problem drivers and evidence

The preamble to Regulation (EC) No 216/2008 stipulates that "*Results of air accident investigations should be acted upon as a matter of urgency, in particular when they relate to defective aircraft design and/or operational matters, in order to ensure consumer confidence in air transport*".[65] The Regulation also obliges the Commission, when developing implementing rules for airworthiness and operations, to ensure that they allow for immediate reaction to established causes of accidents and serious incidents.[66]

In addition, under the current regulatory framework in the Community, MS collectively discharge their obligations undertaken under the Chicago Convention when related to design of aeronautical products. It is EASA which on behalf of the MS, carries out the functions and tasks of the State of Design, Manufacture and Registry when related to design approval, as specified in the Chicago Convention and its Annexes.[67]

A number of opinions were exchanged between the Commission, EASA and NSIAs in the past years related to the consequences of the adoption of Regulation (EC) No 1592/2002 (now (EC) No 216/2008) and the establishment of EASA, on the organisation of accident investigation in the Community. This discussion focused on the status of EASA in accident investigation and the scope of eventual participation rights which could be attributed to the Agency in this respect.

One of the aspects debated in particular concerns the right to appoint "accredited representatives" for the "State of Design", under Annex 13. As described in section 2.2.1 above, a number of States participate in a safety investigation. States other than the State of Occurrence, with a specific interest related to the circumstances of the accident, have the right (or under certain circumstances an obligation) to appoint an "accredited representative" to participate in the investigation. States appointing accredited representatives and the accredited representatives themselves[68] enjoy specific rights in their respective areas of competence. These include in particular:

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64 *c.f. 62*

65 *idem*, whereas clause No 17

66 *idem*, Articles 5(6) and 8(6)

67 *idem,* Art.20(1) in conjunction with Art.17(e)

68 A person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State (Chapter I, Definitions, Annex 13)

– The right to request the State of Occurrence, that the aircraft, its contents, and any other evidence remain undisturbed pending inspection by an accredited representative of the requesting State;[69]

– The right to participate in all aspects of the investigation, under the control of the investigator-in-change (including the right to visit the scene of the accident, examine the wreckage, have full access to all relevant evidence as soon as possible, participate in read-outs of recorded media, participate in off-scene investigative activities, make submissions in respect of the various elements of the investigation);[70]

– The right of the State concerned to appoint one or more advisers to assist the accredited representative in the investigation;[71]

– The right to comment on the final report form the investigation and to have its comments, which were not taken into account by the State conducting the investigation, attached to the report;[72]

At the same time, accredited representatives and their advisers are also obliged:

– to provide the State conducting the investigation with all relevant information available to them;

– not divulge information on the progress and the findings of the investigation without the express consent of the State conducting the investigation.[73]

In the debate concerning the scope of participation rights which could be entrusted to EASA, two main groups of arguments were presented by the MS authorities:

– Arguments of legal nature: some of the MS argued that the Community legislator did not entrust EASA with any competences related to accident investigation, in particular the rights to appoint accredited representatives on behalf of the "State of Design" under Annex 13, as the competences of the Agency are limited to Annex 8 ("Airworthiness of Aircraft") and do not extend to Annex 13;

– Arguments related to independence of safety investigations: some of the MS argued that, even if possible within the current regulatory framework, entrusting EASA with too broad participation rights, and in particular the right to appoint accredited representatives on behalf of the MS, would put in question the independence of the investigation, as EASA could be investigating design aspects of the accident involving aircraft initially certified by the Agency;

EASA, as an authority responsible for type certification, may have a potential conflict of interest with the tasks entrusted to the NSIA, and therefore its role in the investigation should be limited to what is strictly necessary.

At the same time however, both from the legal, but most importantly from the safety point of view, the current lack of clarity cannot be accepted. From the legal perspective, it has to be noted that Annex 13 defines the "State of Design" as the "State having jurisdiction over the organization responsible for the type design". In

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69 Annex 13 (Standard 3.3)

70 *idem* (Standard 5.25)

71 In case of a State of Design it will normally be advisers, proposed by the organizations responsible for the type design of the aircraft, powerplant or a major component.

72 Annex 13 (Standard 6.3)

73 *idem* (Standard 5.26)

the current EU regulatory framework, it is the EASA which, on behalf of the MS, is responsible for approval and continuous oversight over organizations responsible for type design. There is thus an inherent link between the current scope of competences of the Agency and the concept of the "State of Design" under Annex 13.

Most importantly however, and regardless of legal considerations, the current lack of clarity has an important safety dimension. It is the Agency who should dispose of all the pertinent data related to design approval and is legally responsible, on behalf of the MS, for ensuring that any safety recommendations concerning design aspects of an aircraft designed, manufactured or registered in the EU and involved in an accident, are properly acted upon. In particular it is the responsibility of EASA to issue Airworthiness Directives.[74]

Aircraft of European design, manufacture or registry operate in all parts of the world and when an accident happens involving such aircraft, EASA, as the responsible design authority, has an important safety interest in being represented during the investigation and acquiring all pertinent factual information concerning the event without delay to take appropriate safety action if necessary. EASA may have also an interest in acquiring factual information if an airworthiness factor contributing to an accident could have been linked with the competency of organisations certified by the Agency.[75]

Similarly, the Agency in order to properly discharge its safety related obligations, and in particular concerning continuing airworthiness of a type of aircraft under its regulatory responsibility must have unhampered access to all in-service related information, including on any occurrences reported in this respect, which could indicate potential safety hazards.

In addition to acquiring factual information, EASA, having a wide degree of expertise and knowledge of the type certification basis, can and should contribute to the investigation, so that the most accurate findings can be made and follow-up actions taken. EASA may have for example knowledge about the history of the events related to a particular type of aircraft or engine.

Figure IV: Annual accidents of EU/EEA/EFTA manufactured turbine aircraft[76]

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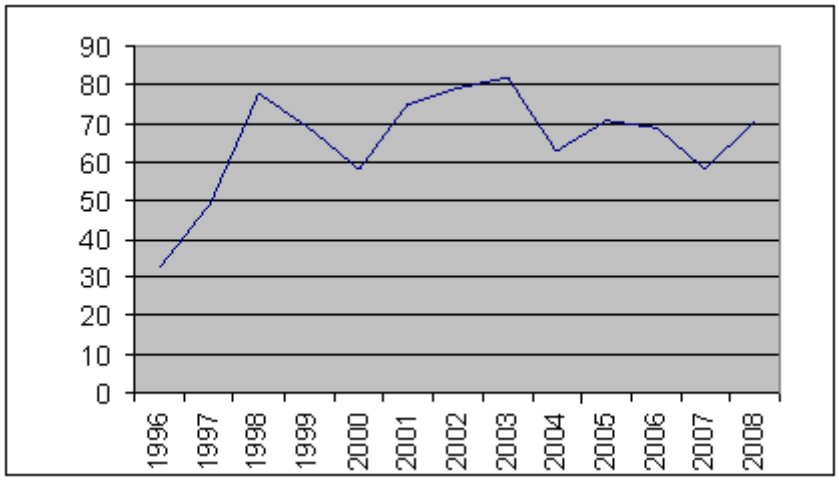
74 Airworthiness Directive is a notification to owners and operators of certified aircraft that a known safety deficiency with a particular model of aircraft, engine, avionics or other system exists and must be corrected. If a certified aircraft has outstanding airworthiness directives that have not been complied with, the aircraft is considered not airworthy. Airworthiness Directives usually result from reports of operators or from the results of aircraft accident investigations.

75 For example a third country maintenance organisation approved by EASA and performing repairs on the aircraft involved in an accident.

76 Data covering turboprop aircraft with maximum certified number of passengers above 15, as well as all turbojet aircraft



Source: Airclaims

Since 2006, EASA and NSIAs have been trying to clarify the role of the Agency in accident investigation by concluding working arrangements on a voluntary basis. Up to date this issue was not adequately resolved, main reasons for this being:

– some NSIAs argue that working arrangements do not constitute a valid legal basis for the transfer of participation rights that States enjoy under the Chicago Convention;

– disagreement between the NSIAs and EASA as to the scope of participation rights to be eventually granted to the Agency, without compromising independence of safety investigations;

The current situation was identified as not acceptable in a recent audit of EASA conducted by ICAO within the framework of the Universal Safety Oversight Audit Programme (USOAP) audit.[77] The report makes a finding on this particular issue and concludes that: "*EASA has not reached a formal agreement with the EU Member States regarding the modalities and status of participation of EASA and representatives of Member States bodies in accident and serious incident investigations involving aircraft whose type certificate is delivered by EASA*".

Thus for the time being the relationship between EASA and NSIAs is dealt on an *ad hoc* basis and in a number of cases, due to tensions between the NSIA and the Agency, the flow of important safety information was hampered or delayed. Due to the international character of accident investigation this issue affects not only investigations conducted in the EU but also in third countries.

It is therefore of utmost importance from the safety point of view, that the mutual rights and obligations of EASA and NSIAs are clarified. At the same time, as EASA is involved in certification of aircraft and of organisations involved in their design manufacture, or maintenance its role in accident investigation has to be limited to what is strictly necessary, in order to avoid any potential conflict of interest.

Similarly, as the Agency plays a major role in the continuing airworthiness processes in Europe, it has a legitimate need for access to occurrence data, which is indispensable to support its work. Such data is required with a level of detail that

[77] Final Report on the Safety Oversight Audit of the European Aviation Safety Agency, 23–25 April 2008 (*confidential)*. The final report is available to all Contracting Parties to the Chicago Convention through the ICAO Universal Safety Oversight Audit Programme (USOAP) secure website.

permits action to be taken. For example, as aircraft of a given type may differ from each other in respect to modifications applied and product improvements incorporated, knowledge of the serial number of the aircraft is essential to assess the needs for corrective action. Moreover, given its newly acquired competences the Agency needs to develop safety information based on the aircraft operated by operators in Europe and thus it is essential that information on the State of the operator is also made available to the Agency. The current restrictions envisaged in Directive 2003/42/EC and its implementing rules do not permit such access on a continuous basis. At the same time, such information, due to its sensitive and confidential nature, should be used by the Agency only for purposes related to improvement of safety and protected from unauthorised disclosure.

3.5. Weaknesses in implementation of safety recommendations

Despite significant efforts in this respect, there is still no consistent approach in the Community concerning gathering, processing and implementation of safety recommendations resulting from accident investigations. In particular, the establishment of a Community database of safety recommendations has not yet been finalised and the Community did not establish common requirements for transparent and efficient:

– recording of the responses to the safety recommendation issued; and

– monitoring the progress of the action taken in response to a safety recommendation;

In addition, the number of safety recommendations addressed to the Community regulator and EASA has increased substantially in the past years and this trend is expected to continue. At the same time, safety recommendations of EU-wide relevance are not followed up in a consistent manner across the EU due to lack of coordination between authorities at the national and Community level. Independent and transparent monitoring of implementation of safety recommendations addressed to the national and Community regulators is also not adequate.

3.5.1. Problem drivers and evidence

Safety recommendations resulting from accident investigations are of crucial importance. By linking the independent process of looking into the causes of accidents with practical measures aimed at prevention of their re-occurrence, recommendations have a direct impact on the improvement of aviation safety and are thus one of the most important points addressed in this IA.

Implementation of safety recommendations is not mandatory and it is up to the addressee to assess its validity and the most cost efficient way of implementation. At the same time, it is important from the safety and public policy point of view that an efficient and transparent process is in place ensuring that every safety recommendation is always assessed, replay given and corrective measures implemented if justified.

According to Directive 94/56/EC, the reports and safety recommendations are made public and communicated to the undertakings or national aviation authorities concerned and copies forwarded to the Commission. MS are also obliged to take the necessary measures to ensure that the safety recommendations made by the NSIAs

are duly taken into consideration, and where appropriate, acted upon without prejudice to Community law.[78]

In practice, the process of follow-up and monitoring of implementation of safety recommendations in the MS vary considerably. Some MS have a well established process in this respect, while others relay rather on more *ad hoc* practices.[79] The "Group of Experts", in its final report recommends "*to introduce a legislative requirement that provides transparency in relation to official replies to and implementation of safety recommendations*".

There is also currently no provision in the Community law implementing the standard of Annex 13 requiring issuance of safety recommendations at any stage of the investigation if a preventive action is necessary to promptly address an identified safety issue.[80]

In line with the overall objective of accident investigation, safety recommendations and reports should address the causes of accidents and not create a presumption of blame or liability[81], which means for example that the anonymity of the persons involved should be protected. The language of Directive 94/56/EC is not entirely consistent in this respect, whereby such protection is explicitly afforded only to persons involved in incidents but not accidents[82].

The prompt dissemination of safety recommendations is also affected by other considerations analyzed in this IA, and in particular the availability of investigation resources and potential tensions between the different authorities involved in accident investigation.

To facilitate exchange of safety related information between the MS and the Community, the Commission established a central repository of civil aviation occurrences[83]. As far as accident investigation is concerned, the central repository should contain basic factual information on accidents and incidents while the investigation is on-going, and – when the investigation is completed – all relevant information, including when available a summary in English of the final investigation report. However the level of reporting is still far from being satisfactory, as some of the MS are concerned about the adequate level of protection of the data from unauthorised use or disclosure.

A prototype add-on to the central repository dedicated to safety recommendations has been also developed by the Commission, but it is not yet fully operational. This is an important step towards the development of a central database of safety recommendations at the EU level, which should be completed as soon as possible. (This was also recommended by the "Group of Experts" and in responses to the public consultations).

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78 Directive 94/56/EC, Article 9 "Safety recommendations"

79 *c.f. 42*

80 Annex 13, Paragraph 6.8

81 Directive 94/56/EC, Article 10

82 *idem*, Articles 7 and 8

83 The repository is based on the software developed within the framework of ECCAIRS (European Co-ordination centre for Accident and Incident Reporting Systems project managed by the Joint Research Centre of the European Commission) and uses ICAO ADREP (Accident/Incident Reporting) taxonomy. This repository is managed by the Joint Research Centre (JRC) of the Commission.

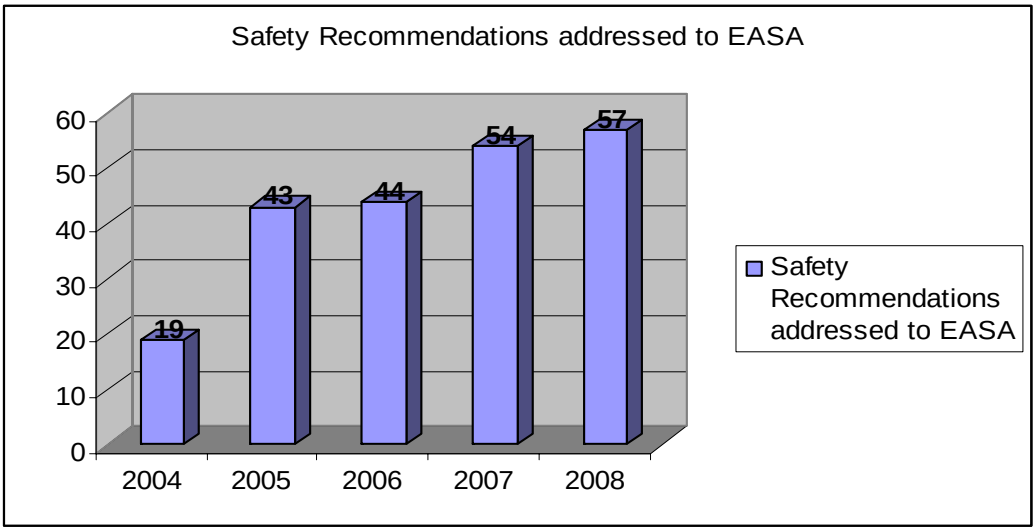
One of the important drivers behind the current inefficiencies in implementation of safety recommendations is lack of the recognition of a Community dimension in this respect. This is critical especially in a situation where almost all areas of aviation safety are regulated at the EU-level and where in significant number of cases, individual MS may be unable to implement safety recommendations on their own in a uniform and consistent manner.

For example safety recommendations which may be addressed by a NSIA only to the national aviation authority or a national airline, may be of relevance to other MS or all Community operators. There is however currently no mechanism which would allow for identification of such safety recommendations on a regular basis.

It is also important to note that there is currently no independent mechanism allowing to monitor implementation of safety recommendations addressed to the Community regulator. At the same time the number of recommendations addressed to the Commission and EASA increased substantially in the past years, and this trend is expected to continue given the ongoing extension of the Community competence in civil aviation safety.

Case III: Increasing role of EASA as an addressee of safety recommendations

The handling of the safety recommendations in an expeditious and responsible manner constitutes one of the pivotal responsibilities for EASA. Since the establishment of the Agency in 2002 the number of safety recommendations addressed to it has been increasing in a steep manner and this trend is expected to continue.



3.6. Protection of the rights of air crash victims and their families

Aircraft accident is an unexpected and catastrophic event. Distress is an inevitable consequence of any accident in which people are killed or injured. In recent years, concern for persons who suffered distress and loss as a result of an aircraft accident has led to increased efforts by the international community to establish means by which the anguish can be best mitigated[84]. This includes establishment of dedicated family assistance plans by States or of emergency procedures by the airlines.

84 For example Convention for the Unification of Certain Rules for International Carriage by Air done at Montreal on 28 May 1999, or ICAO "Guidance on assistance to aircraft accident victims and their families", Circular 285-AN/166

The EU has already developed some legislation in this respect, including on the liability of the air carriers[85] and insurance of this liability.[86] The Community legislation envisages the obligation of the air carriers to provide advance payments to the eligible persons which may be required to meet their immediate economic needs on a basis proportional to the hardship suffered.

There are a number of additional elements related to this issue, including in particular:

– The management of passenger manifests, which are an essential tool in facilitating search and rescue operations, identification of persons which might have been on board of the unfortunate flight, as well as notification of their families;

– The rights of the air accident victims and their families to receive assistance and access to factual information about the circumstances of the accident and progress of the investigation;

3.6.1. Problem drivers and evidence

Passenger manifests

With the exception of the security rules concerning reconciliation of passengers and registered baggage, there are no Community requirements requiring airlines to establish passenger manifests for each and every flight and this issue is left for the voluntary action of the airlines and regulation at the national level, in accordance with the requirements the Chicago Convention.[87] In practice, the most advanced protocols in this respect are developed by the Community airlines operating to the US, due to federal requirements of the US Aviation Disaster Family Assistance Act of 1996 and US Foreign Air Carrier Family Assistance Act of 1997.[88]

Usually airlines compile lists of passengers using data from the gate, to avoid counting passengers not presenting themselves for boarding. Such lists should include also infants and crews not active on a given flight. In addition a crew manifest will be also prepared. The data collected and processed by the airline, will usually include, name, address and contact details, which is necessary for booking purposes. Interviews with some of the airlines indicate that, this data may sometimes not correspond to the actual situation (for example in case of a reservation made by a travel agent).

In the wake of the terrible accident of 20th August 2008 involving Spanish airline Spainair at the Madrid – Barajas airport a debate has arisen concerning management of passenger manifests and in particular their eventual disclosure to the general public and rapid availability[89]. Extensive experiences of the US authorities in similar

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85 Council Regulation (EC) No 2027/97 on air carrier liability in the event of accidents, OJ L285,17.10.1997, p.1

86 Regulation (EC) No 785/2004 of the European Parliament and of the Council of 21 April 2004 on insurance requirements for air carriers and aircraft operators (OJ L 138, 30.4.2004, p. 1)

87 According to article 29 of the Chicago Convention, every aircraft engaged in international navigation, shall carry a list of passenger names, including their places of embarkation and destination. Also the EC Regulation No 3922/91 of 16 December 1991, as amended (EU-OPS) makes a reference to national laws and regulations as far as passenger lists are concerned.

88 http://www.ntsb.gov/family/Family.htm

89 Publication of lists of airline passengers in the event of an accident, Information presented by the Spanish delegation at the occasion of the TTE Council meeting on 9 October 2008 (Council of the European Union, 13660/1/08, REV1)

cases in the 1990ies, proved that it may be difficult for airlines to ensure rapid availability of manifests covering "all souls on board" if proper procedures are not implemented and regularly tested in advance.[90]

Due to importance of this issue, consideration should be therefore given whether and if so to what extent, improvements could be made in order to make sure that delays in availability of reliable manifests, covering "all souls on board" does not negatively affect search and rescue operations, identification of victims of air accidents and notification of their families.

This issue affects also the protection of personal data contained in the manifests in accordance with Directive 95/46/EC of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data[91]. The Directive lays down the legal framework for the processing of personal data in the Community so as to ensure the fundamental right to the protection of personal data[92].

The information contained in the manifests, while essential for the competent authorities responsible for accident investigation, search and rescue or police, has therefore to be handled and processed with full respect of data protection rules, in order to avoid unauthorised disclosure and use, especially without prior consent of the victims and families concerned.[93]

Assistance to the victims of air accident and to their families

While air crashes in commercial aviation are relatively rare, once they occur a large number of victims or fatalities may become involved, touching upon a wide range of families.

Irrespective of the scale of an accident, the victims and their families should receive appropriate assistance. Because of variations in the size and circumstances of aircraft accidents, the extent of the resources required to provide family assistance will vary considerably. Therefore, planning for such events is necessary to ensure that the assistance provided to the victims of a large aircraft accident and their families does not overwhelm the available resources. In such instances an institutionalized crisis management programme would normally provide the optimum set of guidelines, allowing a well-co-ordinated operation benefiting all parties involved, whenever the need arises.

3.7. Who is affected, in what ways, and to what extent?

A wide scope of entities at national and Community level are affected.

NSIAs are affected because they cannot fully benefit from the combined investigating capacity of the EU. This affects their cost base and the overall

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90 In consequence the NTSB asked FAA to require air carriers to standardise the reporting of passenger manifests (see in particular recommendations A-90-105 or A-95-56). In 1996 Congress adopted Aviation Disaster Family Act addressing this issue in a comprehensive way. All airlines operating to the US are required by US legislation to have specific programmes in place addressing assistance for air crash victims and their families.

91 OJ L 281, 23.11.1995, p. 31

92 Charter of Fundamental Rights of the European Union (Article 8) and European Convention of Human Rights (Article 8)

93 This IA does not deal with the issue of informing the families about death or injury resulting from accident. In most jurisdictions in the EU this is the responsibility of the Police or other competent governmental bodies.

efficiency and quality of safety investigations. The NSIAs and their staff cannot also fully benefit from experiences of their counterparts in other MS. Tensions and lack of coordination with other authorities may also inhibit their ability to gather evidence and effectively conduct investigations. Potential of their safety recommendations is also not fully used and they cannot fully benefit from access to safety recommendations issued by other authorities.

The travelling public is affected because lacks in resources, tensions between authorities and problems in the flow of important safety information may delay investigations. The travelling public is also affected because it cannot fully benefit from all potential improvements contained in safety recommendations.

The Community and in particular EASA as well as the NSIAs are affected because their roles and responsibilities in accident investigation are not clearly defined which may affect the flow of important safety information. Aviation regulators are also affected, because they are responsible for follow-up and implementation of safety recommendations.

Third countries are also affected in case of accidents occurring outside of the EU and involving in particular aircraft of European design, manufacture and registry.

Aviation industry (airlines, manufacturers and service providers) is affected, because implementation of safety recommendations has always a certain economic dimension and cost attached.

Judicial authorities are affected because tensions, concerning for example access to information and evidence can affect their statutory obligations to administer justice.

Aviation professionals are affected because they may be reluctant to share sensitive safety information with the investigators or file an occurrence report, if such information could be subsequently used to blame them.

3.8. Does the EU have the right to act?

The overall Community competence to regulate civil aviation accident investigation and occurrence reporting was established on the basis of Directive 94/56/EC and Directive 2003/42/EC. Some aspects related to this issue are also addressed in the Regulation EC No 3922/91 of 16 December 1991, as amended (EU-OPS)[94] and Regulation EC 216/2008.[95]

Further intervention at the EU level would be only justified if two conditions of the subsidiary test are met. Firstly, it is important to be sure that objectives of the proposed action could not be achieved sufficiently by the MS (necessity test). Secondly it is necessary to consider whether and how the objectives could be better achieved by action on the part of the Community (test of European value-added).

In this respect, an action at the Community level is both necessary and justified from the added value perspective. Intervention at the Community level would in particular:

– Ensure the necessary uniformity of action, which is needed in the area of civil aviation safety (in particular in relation to uniform implementation of safety recommendations or increase in the investigation capacity of the EU as a whole);

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94 *c.f.* 57

95 *c.f.* 62

– Allow to address the inefficiencies of institutional nature, including in particular clarification of the role of the Community in accident investigation;

3.8.1. The added value of Community Action

The Community action would bring safety benefits by strengthening the preventive function of accident investigation and occurrence reporting. This would be achieved in particular by:

– Increasing the overall investigation capacity of the EU (better sharing of resources, building up uniform expertise of NSIA and investigators);

– Reducing tensions between the various authorities involved in the investigation (better coordination between the authorities, protection of evidence);

– Updating the existing regulatory framework for accident investigation, following the adoption of EU safety legislation, transfer of certain certification tasks to the Community level and establishment of EASA (clarification the role of EASA and Commission in accident investigation, defining the rights and obligations of NSIA and the Agency);

– Strengthening implementation of safety recommendations in a uniform manner across the EU (building an EU database of safety recommendations, transparent process for replying to safety recommendations, process for identification of safety recommendations of EU wide relevance);

– Strengthening the protection of the rights of victims of air accidents and of their families, in particular by setting minimum standards at the EU level concerning assistance to be provided and rapid availability of reliable passenger manifests, covering "all souls on board";

3.8.2. The proportionality of the Community action

Any Community intervention should be proportionate and addressing only the problems which cannot be adequately solved at the level of the individual MS. Also from the public policy point of view, and given the limitations in the investigating capacity of NSIAs, both the Community as well as national resources should be focused on investigation of events from which the biggest safety benefits can be acquired.

Currently, Directive 94/56/EC obliges MS to investigate all accidents and serious incidents regardless of the nature of the operation or the size of the aircraft involved. At the same time many accidents involving especially light aircraft are repetitions of past occurrences and the benefits and lessons acquired through the investigations may not always justify the resources allocated.

In this context it has to be recalled that in 2008 there were 1220 accidents reported to EASA and involving civil aircraft registered in the EU/EEA/EFTA MS - vast majority of them being accidents of small general aviation aircraft below 2.250 kg MTOM. If only the bigger aircraft of MTOM above 2.250kg are taken into account, the average annual number of accidents involving civil aircraft registered in the EU/EEA/EFTA MS in the period 1997 – 2008 could be estimated at 72.

At the same time aircraft below 2.250 kg MTOM, with the exception of the "Annex II" aircraft, are currently within the scope of the Community competence, and certified by EASA. Some of those aircraft include high-performance turbine powered aircraft such as the “Very Light Jets”.

In this respect should an action at the EU level be taken, appropriate thresholds would need to be established in order to take into account the safety lessons to be learned in determining the extent of the investigation, the procedure to be followed by the NSIAs and the degree of involvement of the Community bodies.

In any case from the safety perspective it is important that all accidents and serious incidents should be notified to the competent authorities at the national and Community level, which should be allowed to initiate an investigation or join an ongoing one, if they consider that safety lessons could be learned. From the EU perspective, the minimum threshold for the involvement of EASA should be accidents or serious incidents involving aircraft certified by the Agency.

4. OBJECTIVES

4.1. What are the general policy objectives?

4.1.1. Enhancement of civil aviation safety

The general objective of the different policy options analysed in this IA is to enhance civil aviation safety in line with the strategic goals of the Community transport policy, as set out in the Communication from the Commission: "Keep Europe moving - Sustainable mobility for our continent (Mid-term review of the European Commission's 2001 Transport White Paper)"[96], and the institutional changes which took place following the establishment of a European certification authority (EASA).

This objective has to be set in a realistic manner. While the elimination of all accidents is certainly desirable, absolute safety cannot be achieved, especially in the dynamic context of such a complex activity as modern aviation. Also, even if full regulatory compliance is achieved, it will be far from guarantying absolute safety. No human activity can be guaranteed to be absolutely free from hazards despite the best efforts to prevent them.

The approach that this IA takes to safety benefits is by identifying areas creating risks which need to be addressed and then by proposing the most cost-efficient means of addressing them. This IA is without prejudice to any projects concerning the development of Safety Performance Indicators (SPI) in the EU and does not attempt to quantify safety benefits with precise figures (e.g. "x" % reduction of accidents by year "y"), as this would necessitate the ability to predict when and where the next accident might happen. Given that accidents in civil aviation have become rare to the point of constituting almost random events, this is not possible and would be speculative.

4.1.2. Promoting legal certainty

Accident investigation requires legal certainty. When an accident happens time is of essence and the roles and tasks of all the parties have to be known in advance and clearly defined. This concerns in particular the role of the NSIAs and EASA, access to important safety information, as well as coordination between all the authorities which may be involved in the investigation or search and rescue operations.

One of the important objectives of the Community should be thus to strengthen the required legal certainty, in particular given the fact that the current regulatory regime necessitates involvement of entities at both national as well as Community level.

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[96] COM(2006) 314 final, Brussels, 22.06.2006

4.1.3. Maintaining independence of safety investigations

To reveal all circumstances of an accident, the NSIA must be strictly objective and totally impartial and should be established in a way to be able to withstand political or other interference or pressure.[97] Its only objective should be the enhancement of safety and the safety investigation should be independent from any other proceedings which could conflict with this objective.

The NSIA is tasked with determining the causes of an accident and making safety recommendations, while the responsibility for their implementation rests with operators and civil aviation administration. This division of responsibility is appropriate since civil aviation administration has overall responsibility for the regulatory framework of aviation and its development.

It is important that the principle of independence of safety investigations is fully respected and strengthened by all the policy options analysed in this IA. The principle of the separation of accident investigation from regulatory and oversight activities should apply both at the MS as well as at the Community level. This is important especially in the context of the extension of the EU competences to new areas of aviation safety in accordance with the "total system approach". This would apply for example to participation rights given to EASA, as an authority responsible for type certification of aircraft.

4.2. What are the specific objectives?

The objectives of the proposed EU action should tackle the problem areas identified in the Chapter 2 above and address directly their root causes. These objectives should be specific, measurable, accepted, realistic and time-dependent.

The Specific and operational objectives, as well as relationship between these objectives and the identified problem areas are outlined in Table II below.

4.3. Consistency with horizontal policies of the European Union

The objectives of this proposal are consistent with the overall policies of the EU. Firstly, by improving safety of air transport in the EU, they contribute to the attainment of the wider objectives of the Lisbon Agenda and EU consumer protection policy. In addition, by reducing tensions between accident investigations and judicial proceedings, and in particular by ensuring appropriate protection of sensitive safety information, the objectives of this proposal strengthens the respect for the fundamental rights of the EU citizens.

[97] Doc 9756 “Manual of Aircraft Accident and Incident Investigation” - Part I Organization and Planning

Table II: Specific and operational objectives and their relationship with problem areas

Specific Objectives	*Increase the investigating capacity of the EU*			*Reduce tensions between authorities involved in the investigation*		*Clarify the role of the Community in safety investigations*		*Better implement safety recommendations*			*Strengthen the rights of the victims and families*	
Operational objectives	Better coordinate the resources of NSIAs	Harmonise training and qualification requirements for investigators	Regularly monitor the investigating capacity of NSIAs	Better coordinate activities of the authorities involved	Better protect sensitive safety information	Define the mutual rights and obligations of EASA and NSIAs	Ensure that independence of safety investigation is not compromised	Establish community database of safety recommendations	Ensure that every recommendation is assessed and a reply given in a timely and transparent process	Ensure a mechanism identifying recommendations of EU wide relevance	Organise efficient support for the families and victims	Ensure availability of reliable pax manifests after accident
Problem Areas												
Lack of Uniform investigating capacity	√	√	√									
Tensions between investigations and other proceedings				√	√							
Unclear role of Community in safety investigations						√	√					
Weaknesses in implementation of safety recommendations								√	√	√		
Protection of the rights of the victims											√	√

5. POLICY OPTIONS

This section outlines the policy options which have been considered by the Commission to address the problem areas described in Chapter 2 and to meet the policy objectives identified in Chapter 3.

5.1. Possible policy options

(1) Policy Option No 1 "Baseline Scenario - Do Nothing"

This policy option is a reference or a "baseline" scenario and means that no additional action at the EU level would be taken in addition to the already ongoing initiatives.

Not taking any new action at the EU level does not necessarily mean that there is no change at all, as the MS would continue to develop cooperation within the current regulatory framework. However, based on the evidence available, recommendations of the "Group of Experts", as well as the results of the public consultations, this IA argues that taking no action would not be acceptable form the public safety point of view.

Review of recent or ongoing initiatives

The cooperation between the EU NSIAs has been recently strengthened with the establishment of the Council of European Safety Investigation Authorities (the Council), which is composed of the Heads of the NSIAs of the EU MS. The Council coordinates and harmonises the activity of NSIAs without hampering their independence.

In addition a "Code of Conduct on Co-operation" was endorsed at the beginning of 2006 by the ECAC MS. This agreement, consistent with the relevant provisions of Annex 13 and Directive 94/56/EC, provides for a convenient framework for co-operation outside the context of a specific investigation. The ECAC Group of Experts on accident investigation has also developed "A checklist on assistance" which constitutes a useful tool to assist states in self-assessment of their needs related to investigations and identification of possible practical or legal obstacles.

As far as global cooperation in the area of accident investigation is concerned, it is worth mentioning the conclusions of the last ICAO Accident Investigation and Prevention (AIG) Divisional Meeting (Montreal 13 – 18 October 2008), which resulted in numerous recommendations to improve the global regulatory framework for civil aviation accident investigation and prevention. The EU actively participated in that meeting tabling 7 Working Papers coordinated also with the non-EU ECAC MS. One of the most important actions undertaken by ICAO as a follow-up to the AIG meeting is the currently ongoing comprehensive revision of Annex 13.[98]

As far as the activities in the EU are concerned, the ongoing work on the development of implementing rules to the Regulation (EC) No 216/2008 as well as the extension of the Community and EASA competence to safety aspects of aerodromes as well as ATM/ANS have to be mentioned. Extension of the Community competence in this respect is expected in particular to increase the role of EASA and the Community regulator as an addressee of safety recommendations.

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[98] ICAO State Letter, AN 6/1.2-09/36

Impact of recent or ongoing initiatives on the identified problem areas

Lack of uniform investigation capacity in the EU

Given the establishment of "the Council", and development of tools such as "the checklist on assistance" and "the Code of Conduct", the overall investigating capacity of the NSIAs is expected to increase. These initiatives contribute to better coordination of resources, training activities and harmonisation of qualifications of investigators.

Given however the previous experiences with the Joint Aviation Authorities, which led to establishment of EASA, it is not expected that full harmonisation of accident investigation standards and methodology can be achieved through voluntary cooperation only. More structured cooperation may be also needed in case of situations whereby a number of accidents occur in the same period of time and necessitate extended simultaneous engagement of a few NSIAs.

Tensions between safety investigations and other proceedings

It is difficult to assess to what extent the coordination between the various authorities involved in the investigation can be improved. Experiences of at least some MS suggest that voluntary cooperation between NSIAs and judicial authorities can improve the situation.[99] This can be for example achieved by concluding in advance appropriate arrangements between the NSIAs and other services (judicial, search and rescue etc). This practice is recommended in the ICAO guidance material.[100]

In the current revision of Annex 13 initiated by ICAO[101] the issue of better coordination of proceedings is also going to be addressed, in particular in providing additional guidelines to the States on how coordination between the accident investigation authorities and the judicial authorities regarding in particular the control of the wreckage could be achieved.

However, it has to be stressed that without a sound mechanism supporting such cooperation, its full potential may be hard to achieve on the EU scale. Voluntary cooperation may also be not sufficient to ensure protection of sensitive safety information, such as witness testimonies or other statements, accounts and notes taken or received by the NISAs, where legal certainty is of paramount importance.

Unclear role of Community in safety investigations

It can be expected that the role of Community and of EASA in accident investigation will continue to be dealt with on an *ad hoc* basis. So far the NSIAs and the Agency did not manage to agree on common protocols in this respect. It has to be also noted that from the very beginning, the draft of the working arrangements negotiated between the Agency and NSIAs was considered to be only of a transitional nature and would cease to exist should the EU adopt binding regulations covering this issue.

Lack of legal certainty in this respect may, as already experienced in the past, lead to situations where the flow of important safety information between NSIAs and EASA needed to take corrective safety action or disclosure of all the circumstances of an

99 *c.f. 50*
100 *c.f. 35*
101 *c.f. 98*

accident, is hampered. As indicated in the ICAO USOAP report on EASA, this affects in particular aircraft certified by the Agency.

Weaknesses in implementation of safety recommendations

Certain improvements can be expected from the ongoing revision of Annex 13, where in particular a deadline of 90 days is proposed for informing an originator of the recommendation about the preventive action taken or under consideration, or the reasons why no action will be taken. "The Council" is also trying to better coordinate the exchange of safety recommendations.

Overall however, inefficiencies are expected to continue as far as exchange and follow up to safety recommendations in a uniform manner in the EU is concerned. This issue is mainly related to the institutional and regulatory changes which in the past decade took place in the EU in the area of aviation safety.

It would be important for the EU to have a central database of safety recommendations and an efficient and transparent mechanism for assessing, replying and monitoring follow-up to safety recommendations. This mechanism should cover recommendations addressed to the industry and national and Community bodies, especially given the increasing role of the Community as an addressee of safety recommendations. It would be also necessary to have a process which would identify recommendations of EU wide relevance. This could be achieved for example by mandating each entity in the EU issuing or receiving a recommendation to have a uniform process for:

– recording the responses to the safety recommendation issued, and

– monitoring the progress of the action taken in response to the safety recommendation;

All recommendations and replies thereto should be also recorded in the central repository in order to facilitate sharing of this important safety information, transparent monitoring of the implementation of recommendations and analysis of trends in safety deficiencies at the EU wide level.

Protection of the rights of air crash victims and their families

Community airlines and especially those operating to the US do have procedures for management of passenger manifests. The problem analysed in this IA concerns however the quality of those procedures, their regular testing and consistency in application across the EU. Lack of harmonisation in this respect may affect the rights of families to prompt information about the fate of their loved ones or inhibit safety investigation or search and rescue operations. Equally, similar level of protection in terms of assistance and information provided to the victims and families of air accidents should be available across the EU.

(2) Policy Option No 2 "Promotion of voluntary cooperation"

Under this policy option the Community would actively promote voluntary cooperation between the NSIAs. This policy option would not involve any new legislative action and rely on the already existing regulatory framework.

1. How this policy option would be implemented?

This policy option is based on the resources already existing in the MS and the experiences of the existing informal cooperation of the NSIA ("the Council of European Aviation Safety Investigation Authorities"). Under this policy scenario, the

Commission would engage in an active dialogue with this grouping of NSIAs on all issues concerning development and implementation of EU civil aviation accident investigation and prevention policy. This relationship could be formalised through a decision, similar to the Commission Decision of 29 July 2002 establishing European Regulators Group for Electronic Communications Networks and Services[102] (however, a decision of the EU Council rather than of the Commission would be necessary to maintain the independent status of the NSIAs). This would respond to the recommendation formulated by the "Group of Experts" which called for a "*formal recognition of the coordinating role of Aviation Safety Investigating Authorities in a European context*". Such a decision would define the mandate of the grouping.

Regular meetings between the NSIAs, Commission and EASA would contribute to greater uniformity, better implementation and enforcement of the Community civil aviation accident investigation legislation. It would also strengthen the investigating capacity of the EU and the preventive function of accident investigation by promoting a more coordinated cooperation between the NSIAs, Commission and EASA, while fully retaining the independent status of NSIAs.

The structure of the coordination grouping of NSIAs would remain unchanged. It would be composed of the respective heads of the NSIAs of all the MS. It would appoint its Chair and its Vice-Chair(s) from among its members, subject to its rules of procedure. It could establish technical groups to deal with specific issues such flight recorders, human factors or safety recommendations.

The grouping of NSIAs would retain an independent status. Its members would neither seek nor accept instructions from any public or private groupings or entities. The Commission and EASA would however participate in its meetings for those subject matters which do not raise issues of conflict of interest.

Specific support of the Commission to the grouping could be provided through an annual grant assigned on the basis of the Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 (the Financial Regulation)[103]. To minimise administrative burden and avoid the creation of a fully fledged administration, this annual grant would be allocated to the chairman of the grouping who would be responsible for the use of the grant and the formal contractual counterpart of the Commission.

The specific responsibilities of the grouping of NSIAs supported under this policy option would be to:

- Issue opinions and advising Community institutions on all aspects related to the development of the EU civil aviation accident investigation and prevention policy;
- Actively promote a more structured cooperation between the NSIAs and between the NSIAs, Commission and EASA;
- Coordinate training activities of the NSIAs;
- Promote best investigation practices and develop a common EU accident investigation methodology;
- Organise "peer reviews" allowing to standardise the NSIAs on a voluntary basis;

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102 OJ L 200, 30.07.2002, p.38.

103 OJ L 248, 16.9.2002, p.1.

– Promote dialogue between the NSIAs and law enforcement authorities to better coordinate involvement of various entities in accident investigation;

– Promote a European database of safety recommendations, exchange of safety data between the EU safety authorities and identify important recommendations of EU wide relevance;

– Coordinate the development of voluntary occurrence reporting systems;

The specific activity which could be supported under this policy option would be the development of a mechanism for sharing of investigation resources available in the MS. This would be similar to some of the functions of the "Community mechanism for civil protection"[104] and constitute a one-stop-shop of civil aviation accident investigation means available in the EU, through which the NSIAs would be able to make an appeal for assistance.

2. Expected benefits

Increasing the investigation capacity of the EU

This policy option is expected to strengthen the overall investigating capacity of the EU and of individual NSIAs. This would be achieved in particular through the mechanism for sharing of the investigation resources available in the MS. The skills and expertise of investigators are also expected to increase through coordination of training activities and development of common training and qualification guidelines. However, given the past experiences with voluntary cooperation in aviation, it is not expected that full harmonisation can be achieved only through this policy option.

Strengthening the dialogue on safety matters in the EU

The grouping of NSIAs, to be supported under this policy option, although having advisory and opinion making powers only, would at the same time represent the single voice of the NSIAs and thus constitute a strong counterpart to both national and EU institutions in a dialogue related to all issues related to the development of civil aviation safety investigation policy and regulation in the Community. This policy option is expected to further increase the transparency and quality of the dialogue on air safety matters in the EU.

Better coordination between authorities involved in accident investigation

This policy option is not expected to strengthen protection of evidence and of sensitive safety information, in line with Annex 13. It is also not sufficient to provide better protection for occurrence reports from being used in non-safety related proceedings.

Better implementation of safety recommendations

Some safety benefits are expected due to more structured cooperation between the NSIAs, Commission and EASA. Better implementation of safety recommendations could be also achieved through closer exchange of information and promotion of a central database of safety recommendations. This policy option however is not sufficient to establish a common process in the EU for managing safety recommendations (lack of legal accountability).

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104 2007/779/EC,Euratom: Council Decision of 8 November 2007 establishing a Community Civil Protection Mechanism

Clarifying the role of the Community in safety investigations

This policy option is not expected to adequately address the issue of lack of clarity concerning the mutual rights and obligations of NSIAs and EASA in accident investigations.

Protection of the rights of air crash victims and their families

This policy option is not expected to address the issue of passenger lists and to a limited extent the issue of assistance to the victims of air accidents and their families.

Maintaining independent status of safety investigations

The independent status of NSIAs and of the investigations would not be affected under his policy option.

Results of the public consultations

This policy option is expected to have support from the NSIAs, majority of which in the public consultations expressed the view, that *"improved efficiency could be achieved by better coordination and promotion of voluntary cooperation".* It does not necessitate establishment of new structures or significant administrative burden for the Community, NSIAs or industry. It is based on the already existing cooperation and resources available in the MS. The only cost for the Community budget would be the annual grant.

Simplification and better regulation

This policy option would be in line with the Commission's strategy of "Better Regulation", by relying on promotion of voluntary cooperation rather than regulation.

(3) Policy Option No 3 "The European Network of Civil Aviation Safety Investigation Authorities"

This policy option relies on promotion of voluntary cooperation which objectives would be enshrined in a legally binding framework. It would be implemented on the basis of a directly applicable Regulation adopted under Article 80(2) of the EC Treaty and repealing Directive 94/56/EC.

1. Promotion of voluntary cooperation…

The first “building block” of this policy option is similar to Policy Option No 2 "Promotion of voluntary cooperation". It would also build on the resources already available in the MS and experiences of the existing informal grouping of NSIAs (the Council of European Aviation Safety Investigation Authorities). This would be done by responding to the recommendation formulated by the "Group of Experts" which called for a "*formal recognition of the coordinating role of Aviation Safety Investigating Authorities in a European context*".

However, under this policy option the current informal cooperation between the NSIAs would be transformed, through the new Community Regulation, into a European Network of Civil Aviation Safety Investigation Authorities ("the

Network"). The new Regulation would define the mandate of "the Network" as promotion of aviation safety through independent safety investigations.[105]

"The Network" would contribute to greater uniformity, better implementation and enforcement of the Community civil aviation accident investigation legislation. It would also strengthen the investigating capacity of the EU and the preventive function of accident investigation by promoting a more structured cooperation between the NSIAs, the Commission and EASA, while retaining a fully independent status. An important function of "the Network" would be also to facilitate the exchange of safety related information between the NSIAs.

"The Network" would be composed of the respective heads of the NSIAs of all the MS. It would appoint its Chair and its Vice-Chair(s) from among its members, subject to its rules of procedure. "The Network" would have the capacity to establish technical groups to deal with specific issues such flight recorders, human factors or safety recommendations.

"The Network" would have an important function of enhancing the investigating capacity of the EU and NSIAs. To this end "the Network" would promote the development of a mechanism for sharing of investigation resources available in the MS. This would be similar to some of the functions of the "Community mechanism for civil protection"[106] and constitute a one-stop-shop of civil aviation accident investigation means available in the EU, through which NSIAs would be able to make an appeal for assistance. "The Network" would also coordinate the training activities and organise regular "peer reviews" of NSIAs, to gradually build up a more uniform investigation capacity of the EU.

"The Network" would retain an independent status. Its members would neither seek nor accept any instruction from any government, from the Commission, or from any other public or private groupings. The Commission and EASA would however participate in the meetings of "The Network" for those subject matters which do not raise issues of conflict of interest.

In order to avoid the creation of a new Community body, "the Network" would have no legal personality under the Community law and its mandate, which would be clearly described in the Regulation, would be limited to advisory and coordination tasks. "The Network", would constitute a body pursuing an aim of general European interest, within the meaning of Article 108 (1)b of the Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 (the Financial Regulation)[107], which would allow the Community to support its activities with an annual grant. To minimise administrative burden and avoid the creation of a fully fledged administration, this annual grant would be allocated to the chairman of "the Network" who would be responsible for the use of the grant and the formal contractual counterpart of the Commission. Grants to be awarded to "the Network" would be subject to an annual

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105 Similar to the European Union Network for the Implementation and Enforcement of Environmental Law (IMPEL) which is an international association of the environmental authorities of the MS, acceding and candidate countries of the European Union and EEA countries, http://ec.europa.eu/environment/impel/index.htm Also the Joint Aviation Authorities (JAA), the predecessor of EASA, had a status of a foundation based on Dutch law (Final Report of the Future of JAA working Group, http://www.jaa.nl/)

106 2007/779/EC,Euratom: Council Decision of 8 November 2007 establishing a Community Civil Protection Mechanism (recast) (Text with EEA relevance)

107 OJ L No 248/1 of 16.9.2002

work programme agreed by the Commission. The work programme would be also made public.

The specific responsibilities of "the Network", supported under this policy option would be to:

- Issue opinions and advising the Community institutions on all aspects related to the development and implementation of the EU civil aviation accident investigation and prevention policy;
- Actively promote a more structured cooperation between the NSIAs and between the NSIAs, Commission and EASA;
- Coordinate training activities of the NSIAs;
- Promote best investigation practices and develop a common EU accident investigation methodology;
- Strengthen the investigation capacity of the NSIA by developing and managing a mechanism for sharing of investigating resources;
- Organising "peer reviews" allowing to standardise the NSIAs on a voluntary basis;
- Promote dialogue between NSIAs and law enforcement and judicial authorities (for example with structures such as Eurojust) to better coordinate involvement of various entities in accident investigations;
- Promote a European database of safety recommendations, exchange of safety data between the EU safety authorities and identify important recommendations of EU wide relevance;
- Coordinate the development of voluntary occurrence reporting systems;

The activity of “the Network” would be regularly monitored in accordance with the principles established in the new Regulation. In particular the Network would be obliged to submit an annual report on its activities, which would be made public. Such monitoring is necessary to ensure the accountability of the Network and to control the efficiency of its work. The respect for the principles of the Community financial discipline in the disbursement of the grants awarded to the Network would also need to be ensured in accordance with the EC financial regulations.

2. Backed by obligations enshrined in law…

The main drawback of a policy option involving voluntary cooperation only is lack of a legal obligation to act within the framework of a clearly defined mandate. Voluntary cooperation is also not expected to adequately resolve issues where legal certainty is needed, such as protection of sensitive safety information, defining the mutual rights and obligations of NSIAs and EASA in safety investigations or establishing uniform requirements in terms of processing of safety recommendations.

To avoid such drawbacks, which are at the centre of the improvement needed to address the problems identified in Section 3 of this IA, this policy option would back the voluntary cooperation by a number of obligations enshrined in law.

The new Regulation would recognise the coordinating role of "the Network" in the European context and give it a clear mandate to act. In addition, it would update the current regulatory framework for civil aviation accident investigation and occurrence

reporting and address issues which are not expected to be adequately solved by voluntary cooperation only.

From the legal point of view, using a Regulation, rather than a Directive would be necessary to address the rights and obligations of EASA. A Regulation would also contribute to better implementation, as the same law would apply in each MS without the need for transposition measures, enable immediate application and focus the attention of the Community on enforcement.

The key provisions of the Regulation envisaged under this policy option would:

- Update and modernise the main provisions of the former Directive 94/56/EC, taking into account in particular the ongoing revision of Annex 13;
- Strengthen the efficiency of safety investigations by implementing into the Community law the recommended standards of ICAO related to the protection of evidence and sensitive safety information, in accordance with Annex 13;
- Strengthen the protection of occurrence reports from being used in non-safety related proceedings;
- Establish common requirements in terms of organisation of NSIAs;
- Require the NSIAs to conclude appropriate arrangement with other authorities (judicial, search and rescue) likely to be involved in accident investigation to ensure better coordination between them;
- Clarify the mutual rights and obligations of EASA and NSIAs without compromising independence of safety investigations, and using Annex 13 as a reference (see below);
- Specify the criteria on the basis of which NSIAs would appoint accredited representatives for the "State of Design";
- Establish common requirements for Community airlines regarding passenger lists, and minimum standards concerning provision of assistance to the victims and families in the immediate aftermath of an air accident;
- Better protect anonymity of persons involved in accident (currently under Directive 94/56/EC such protection is afforded only to persons involved in incidents).[108]
- Establish a legal requirement for every entity in the EU issuing a safety recommendation or receiving it to have a process for:
  - (a) recording the responses to the safety recommendation issued;
  - (b) monitoring the progress of the action taken in response to a safety recommendation;

3. Expected benefits

Increasing the investigation capacity of the EU

This policy option is expected to strengthen the overall investigating capacity of the EU and of individual NSIAs. This would be achieved in particular through the mechanism for sharing of the investigating resources available in the MS. The skills

[108] Articles 7 and 8 of the Directive 94/56/EC

and expertise of investigators are also expected to increase through coordination of training activities, “peer reviews” and the development of common training and qualification guidelines. However, given the past experiences with voluntary cooperation in aviation, it is not expected that full harmonisation can be achieved through this policy option.

Strengthening the dialogue on safety matters in the EU

"The Network", although having advisory and opinion making powers only, would at the same time represent the single voice of the NSIAs and thus constitute a strong counterpart to both national and EU institutions in a dialogue related to the development of civil aviation safety investigation policy and regulation in the Community. This policy option is expected to further increase the transparency and quality of the dialogue on air safety matters in the EU.

Better coordination between authorities involved in accident investigation

Better efficiency of safety investigations (as well as other proceedings) would be achieved by providing a more structured platform for coordination between the various authorities.

In addition better protection of sensitive safety information would be achieved by incorporating into the Community law the relevant standards and recommended practices of ICAO in this respect.

Better implementation of safety recommendations

Significant safety benefits are expected due to more structured cooperation between the NSIAs, Commission and EASA as well as better implementation of safety recommendations. This would be achieved through closer exchange of information through "the Network", establishment of a central database of safety recommendations and a common process for managing safety recommendations in the EU.

Protection of the rights of air crash victims and their families

This policy option would allow to strengthen the rapid availability of reliable passenger lists in the aftermath of an accident and to adequately protect data contained in the lists from unauthorised use or disclosure. It would also allow to establish minimum requirements across the EU concerning provision of assistance to the victims and families in the immediate aftermath of an air accident.

Clarifying the role of Community in safety investigations

Safety benefits are expected from clarification of the rights and obligations of EASA and NSIAs in accident investigations. This would cover the right of EASA, as a responsible design authority, to be represented during the investigation and to obtain without delay any factual information which may be needed to take an immediate safety action in an aftermath of an accident. EASA would be also granted the right to participate in the exchange and analysis of information stored in the central repository of occurrences.

Two scenarios will have to be distinguished: (1) events where a MS of the EU is conducting the investigation; (2) events where a third country is conducting the investigation:

EASA should be also obliged to contribute to the investigation, so that more accurate findings and safety recommendations can be made.

The new Regulation would also define the criteria on the basis of which the NSIAs would appoint accredited representatives for the "State of Design".

Maintaining independent status of safety investigations

The independent status of investigations would not be affected, as "the Network" would retain a status of an association of NSIAs, and be independent from any other body which interests could conflict with the objectives of safety investigations.

Results of the public consultations

This policy option is expected to have support from the NSIAs, majority of which in the public consultations expressed the view, that *"improved efficiency could be achieved by better coordination and promotion of voluntary cooperation".* It does not necessitate establishment of new structures or significant administrative burden for the Community, NSIAs or industry. It is based on the already existing cooperation and resources available in the MS. The only cost for the Community budget would be the annual grant assigned to support "The Network" on the basis of an agreed work programme.

Simplification and better regulation

This policy option would be in line with the Commission's strategy of "Better Regulation", by relying on co-regulation and promoting better implementation of legislation in a proportionate manner.

4. Implementation risks

The main implementation risks which can be associated with this policy option relate to: (1) practical implementation of the established principles relating to coordination between judicial authorities and NSIA, including in the area of evidence gathering and protection of certain safety related information, which is expected to be a sensitive issue; (2) accountability of addressees from third countries for assessment and reply to safety recommendations issued by the EU authorities.

Concerning the issue of coordination of different proceedings, the main mitigating measure will be provided for in the new Regulation, which should ensure a proper balance between the interests of the safety authorities on the one side and judicial authorities on the other. It is however difficult to predict at this stage, to what extent exactly the implementation risks in this respect can be mitigated. The role of “the Network” as a body promoting a more structured dialogue between NSIAs and law enforcement and judicial authorities will be important in this respect.

The global standards concerning management of safety recommendations cannot be addressed through a Community Regulation only. In addition the final decision regarding implementation of a safety recommendation always rests with its addressee. However, the currently ongoing discussion concerning the revision of the Annex 13[109] within the framework of ICAO includes proposals on new standards in this respect and if adopted will significantly contribute to the establishment of globally accepted standards for management of safety recommendations;

Last but not least, due to the fact that this policy option may involve engagement of resources from the Community budget, the risk of fraud will also have to be taken

[109] *c.f. 98*

into account and managed appropriately, in particular through appropriate monitoring of the activities of "the Network".

(4) Policy Option No 4 "European Civil Aviation Safety Board"

The last policy option which could be envisaged to address all the issues identified in Chapter III, would be to establish a European Civil Aviation Safety Board ("the European Safety Board"), tasked with investigation of accidents on behalf of the MS.

The European Safety Board could be established for all modes of transport or for civil aviation only. Given however that multimodal boards exist in a few MS only and that the highest level of harmonisation of accident investigation has been achieved in civil aviation, this policy option in practice would be focused on a dedicated civil aviation body.

1. How this policy option would be implemented?

The European Safety Board would be established as a fully fledged Community agency for civil aviation accident investigation, similar to the U.S. National Transportation Safety Board (NTSB).[110] It would actually conduct investigations of accidents occurring in the EU and participate, through accredited representatives, in investigations led by third countries. The European Safety Board would also manage a central EU database of safety recommendations and issue safety recommendations to all entities at the national or Community level.

Under this policy option the NSIAs would be either replaced by the European Safety Board or a proportionate threshold would be established whereby the NSIAs would be responsible for investigation of smaller but most numerous accidents involving general aviation aircraft. Under this latter solution, the NSIAs would also act as national offices of the European Safety Board, providing a link with the local authorities in the MS and ensuring that investigation can be instigated in a rapid manner pending arrival of the team from the central body. The European Safety Board would standardise the NSIA and ensure uniform level of quality in safety investigations and training of investigators across the EU.

This policy option would necessitate a radical change in the current institutional and legal framework for civil aviation accident investigation in the EU. However, EU wide, it would be expected to have the strongest safety benefits due to the fact that investigation of all major accidents would be performed by a single specialised body on the basis of common standards and by centrally trained investigators.

The European Safety Board should carry out its tasks independently, impartially and transparently. It should be independent from any public or private organisation at the national or Community level whose interests could conflict with its tasks.

This policy option would be implemented through a directly applicable Regulation adopted on the basis of Article 80(2) of the EC Treaty and repealing the current Directive 94/56/EC. Given the fact that it would pursue tasks assigned to it by the Communities and have its activities financed from the Community budget (an annual subsidy), European Safety Board would constitute a Community body within the

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110 The National Transportation Safety Board is an independent US federal agency charged by US Congress with investigating every civil aviation accident in the United States and significant accidents in the other modes of transportation -- railroad, highway, marine and pipeline -- and issuing safety recommendations aimed at preventing future accidents.

meaning of the Council Regulation (EC, Euratom) No 1605/2002 of 25 June 2002 on the Financial Regulation applicable to the general budget of the European Communities.

In addition to the establishment of the European Safety Board, and definition of its mandate under this policy option, the new Regulation would:

- Update and modernise the main provisions of the former Directive 94/56/EC, taking into account in particular the ongoing revision of Annex 13;
- Define the eventual role of the NSIAs vis a vis the European Safety Board (should the NSIAs retained);
- Establish the investigation methodology to be followed by the European Safety Board and NSIAs;
- Establish common requirements in terms of organisation of the NSIAs;
- Establish requirements in terms of training and qualifications of the EU investigators;
- Strengthen the efficiency of safety investigations by implementing into the Community law the recommended standards of ICAO related to protection of evidence and sensitive safety information, in accordance with Annex 13;
- Strengthen the protection of occurrence reports from being used in non-safety related proceedings;
- Clarify the mutual rights and obligations of the European Safety Board, EASA and NSIAs without compromising independence of safety investigations;
- Better protect anonymity of persons involved in accident (currently under Directive 94/56/EC such protection is afforded only to persons involved in incidents).[111]
- Establish common requirements for Community airlines regarding passenger lists, and minimum standards concerning provision of assistance to the victims and families in the immediate aftermath of an air accident;
- Establish a requirement for every entity in the EU issuing a safety recommendation or receiving it to have a process for:
    (a) recording the responses to the safety recommendation issued;
    (c) monitoring the progress of the action taken in response to a safety recommendation

The mandatory standards would be adopted by the Commission in the framework of a comitology procedure, and its application by NSIAs would be verified through mandatory standardisation inspections.

2. Implementation risks

Implementation of this policy option is characterised by specific risks, which merit closer attention.

First of all, it is difficult to assess if successful implementation of this option would not be hampered by the fact that the European Safety Board would have to operate as

[111] Directive 94/56/EC, Articles 7 and 8

an IIC in 27 different jurisdictions of the EU MS. This consideration is critical, having in mind a close link between judicial procedures and accident investigations and the inherent need for the ICC to work in close cooperation with the local law enforcement authorities. The specificities of the local situation may also play an important role in implementation of this policy option, having in mind the very operational nature of accident investigation.

As indicated above, these risks could be mitigated to a certain extent by having the European Safety Board assisted by NSIAs which would act as its regional offices and provide a link with the specificities of the local situation. This would however increase the costs of this particular policy option and in consequence reduce the benefits of the expected economies of scale.

3. Expected benefits

Increasing the investigation capacity of the EU

This policy option is expected to significantly strengthen the overall investigating capacity of the EU. All investigations would be conducted by a central, independent, specialised body, according to a common methodology and by centrally trained investigators. The European Safety Board could be also assisted by NSIAs acting as its national offices and providing appropriate link with the local situation in each MS.

More transparency and independence in safety matters

The European Safety Board would represent a strong counterpart to all regulators and certifying authorities at the national and Community level. It would be very well placed to issue safety recommendations and to monitor their implementation. It would also have resources adequate to be at par with the largest manufacturers and airlines. This policy option would thus significantly contribute to the promotion of transparency and independence in safety investigations.

Better implementation of safety recommendations

Significant safety benefits are expected due to the fact that the European Safety Board would be well placed to issue safety recommendations addressed to entities at the national and Community level as well as industry. It would also manage the central database of safety recommendations, identify recommendations of EU wide relevance and ensure management of recommendations in a standardised manner across the Community. All entities issuing or receiving safety recommendations would be legally accountable for their assessment and appropriate follow up.

Clarifying the role of Community in safety investigations

Significant safety benefits are expected through definition of the relationship between the European Safety Board (its local offices) and EASA. This would cover the right of EASA to be represented during the investigation and to obtain without delay any factual information which may be needed to take an immediate safety action in an aftermath of an accident. In addition EASA would be obliged to contribute to the investigation, so that more accurate findings and safety recommendations can be made. EASA would be also granted the right to participate in the exchange and analysis of information stored in the central repository of occurrences.

Similarly to the previous policy option, two scenarios will have to be distinguished: (1) events where the European Safety Board (or its local office) is conducting the investigation; (2) events where a third country is conducting the investigation and where the European Safety Board participates through its accredited representatives.

Better coordination between authorities involved in accident investigation

Better efficiency of safety investigations would be achieved by providing a more structured platform for coordination between the various authorities involved in the investigation. In addition better protection of sensitive safety information would be achieved by incorporating into the Community law the relevant standards and recommended practices of ICAO in this respect. This would cover also protection of occurrence reports from use in non-safety related proceedings.

Protection of the rights of air crash victims and their families

This policy option would allow to strengthen the rapid availability of reliable passenger lists in the aftermath of an accident and to adequately protect data contained in the lists from unauthorised use or disclosure. It would also allow to establish minimum requirements across the EU concerning provision of assistance to the victims and families in the immediate aftermath of an air accident.

Maintaining independent status of safety investigations

The independent status of investigations would not be affected, as the European Safety Board would not be involved in any tasks which could conflict with the objectives of safety investigations. The European Safety Board would be obliged to carry out its tasks independently, impartially and transparently.

Results of public consultations

Opinions expressed in public consultations varied considerably as to the added value of establishing a single European safety investigation authority. Most of the respondents representing MS authorities indicated that this policy option is not feasible in the current situation, whereby some argued that it could be a good option for the future. On the other side, majority of the respondents representing manufacturing industry favored this policy option.

4. Why EASA or the Commission could not be tasked with the functions of the European Safety Board?

One could envisage assigning the tasks of the European Safety Board to an already existing institution such as EASA or Commission. In particular EASA, as a body with significant experience in safety matters, could be tasked with these functions. Although this solution could be deemed as attractive from practical and cost-efficiency point of view, it would also have serious deficiencies.

It is necessary that the EU fully respects the principle of independent safety investigations and contributes to its strengthening. In this context it has to be noted that EASA, as an entity involved in aircraft certification, could be in a potential conflict of interest with the objectives of safety investigation. Similar conflicts of interest would exist if the Agency would be issuing safety recommendations to itself.

One could envisage trying to address the conflict of interest issue by putting in place appropriate mitigating measures such as establishment of an independent unit in the Agency, similar the EASA Board of Appeal, which is responsible for deciding on appeals against the decisions of the Executive Director of EASA. However, this

solution is not considered as credible and also not expected to get the necessary support from the MS authorities and industry.

Similarly one could envisage giving to the Commission the tasks of the European Safety Board. Similarly however, this solution could raise questions as to the respect for independence of safety investigations, especially in situations where the circumstances of an accident would be indicating weaknesses in Community standards. In addition the Commission does not have the adequate capacity and expertise to efficiently discharge such functions (which are of a very operational nature) without the support of an Agency.

6. ANALYSIS OF IMPACTS

6.1. Introduction and rating of impacts

All presented policy options have strong and weak points, including in particular trade-offs between safety and cost-efficiency. It is thus necessary to assess not only their economic, social and environmental impacts but most importantly safety impacts, which are an overriding factor within the context of this IA.

The costs of implementation and administrative burden involved has to be also carefully considered, as some of the policy options envisage establishment of new structures and would impact on the Community and MS budgets.

Rating of Impacts	Weighting of impacts
Positive impacts or savings (intensity): √ to √√√ Negative impacts or costs (intensity): - √ to - √√√	**Safety impacts** and **implementation risks** are given the highest relative weight, followed by **costs of implementation** and all **other** impacts (see point 8.1 below for detail weighting of impacts);

6.2. Safety impacts related to identified problem areas

This section presents safety impacts of each policy option

Policy Option 2 "Promotion of voluntary cooperation"	
Justification	***Rating***
– **Investigation capacity** of NSIA is expected to be strengthened (more structured cooperation of NSIA, establishment of a mechanism for sharing of resources, coordination of training activities, development of best investigation practices and guidance material); – Some improvements in implementation of **safety recommendations** can be expected (closer exchange of information, common platform for identifying recommendations of EU wide relevance, promotion of the EU safety recommendations database); – Not adequate to strengthen **protection of evidence and sensitive safety information**; – Not adequate to ensure **protection of occurrence reports** from use in non-safety related proceedings; – Not expected to define the mutual **rights and obligations of EASA and NSIAs**; – Not adequate to ensure a **common process for managing safety recommendations** in the EU (including accountability of the addressee for follow up); – Not adequate to address the issue of passenger manifests, and only to a certain extent of the **assistance provided to the victims and families;**	√

Policy Option 3 "European Network of Civil Aviation Safety Investigation Authorities"	
Justification	***Rating***
Additional benefits expected (compared to Policy Option 2): – More **certainty in obtaining all relevant safety information which is necessary for the success of a safety investigation** (better protection of sources of information); – More **safety data on occurrences** to analyse (better protection of occurrence reports from use in non-safety related proceedings); – **Better flow of factual safety information** (defining mutual rights and obligations of NSIA and EASA); – **More uniform investigation process** (Common requirements in terms of organisation of NSIAs); – Better implementation of safety recommendations (establishing common **requirements for processing of safety recommendations** in the EU); – **Less tensions between the authorities** involved in accident investigation (better coordination through advance arrangements); – Better **protection of the rights of the victims and families** in the aftermath of an air accident	√√
Policy Option 4 "European Civil Aviation Safety Board"	
Justification	***Rating***
Additional safety benefits expected (compared to Policy Option No 3): – **Fully harmonised investigation process** (single body conducting all major investigations, common investigation methodology, centrally trained investigators, standardisation of NSIAs through mandatory inspections); – **Better and more transparent implementation of safety recommendations** (independent mechanism for issuing safety recommendations and monitoring of their implementation, centrally managed database of safety recommendations).	√√√

6.3. Economic, social and environmental impacts

The considerations presented below are common to all the options

Assessment criteria	*Rating*	*Justification of the rating*
Economic impacts[112]	√ to √√√	Some positive economic impacts can be expected, mainly under Policy Option No 3 and 4 which should further strengthen the perception of EU air carriers and aircraft of European design as safe and reliable. The quantitative dimension of these impacts is however difficult to assess, mainly due to lack of a reliable methodology.
Social Impacts[113]	√ to √√√	Some positive impacts are expected especially under policy option No 3 and 4 due to strengthening of the rights of EU citizens to safe air transport. Positive impacts are also expected as far as protection of the rights of air crash victims and their families are concerned. Positive impacts on the working environment of aviation professionals are also expected through stronger

[112] Economic impacts in the context of this IA are understood as reflecting factors important from the competitiveness point of view (in this case competitiveness of the European air transport industry).

[113] Social impacts address issues related to quality of jobs including health and safety at work as well as fairness. Impacts on fundamental rights of the EU citizens and consumer protection are also covered by this section

		protection of occurrence reports. The quantitative dimension of these impacts is however difficult to assess, mainly due to lack of reliable methodology.
Environmental Impacts[114]	0	No substantial environmental impacts are expected as a result of the implementation of the policy options considered.

6.4. Impacts on fundamental rights

All Commission proposals have to be compatible with the EU Charter of Fundamental Rights[115], and it is thus necessary to assess the potential impacts of the proposed policy options on the fundamental rights as laid down in the Charter.

Aviation safety is directly linked to the most important basic human right, the right to life. Aviation takes place in a hostile environment, in which a passenger has no control and is enclosed in a vulnerable cocoon, outside of which human life cannot be supported. Under these circumstances, it is of paramount importance to offer protection against threats to life.[116] In this context the link between the safety impacts (see above) of each option and the right to life has to be stressed in particular.

The considerations presented below are common to all the options

Rating	***Justification of the rating***
√ to √√√	The proposed policy options are expected to have overall positive impacts on the right of EU citizens to safe communication by air. The intensity of these impacts will be related to the intensity of the safety impacts discussed above. Common rules on the management of passenger manifest and minimum standards concerning assistance to the victims of air accidents and their families is expected to positively contribute to the protection fundamental rights of EU citizens. Better protection of the sensitive safety information, including in particular of occurrence reports, from use in non-safety related procedures to attribute blame or liability is expected to positively impact on working conditions, as aviation professionals should be more willing to report safety incidents without the fear of being prosecuted. Protection of sensitive safety information from being used to attribute blame or liability and closer cooperation between the safety and judicial authorities is also expected to positively impact on the rights of the persons involved by reducing the risk of self-incrimination and speeding up evidence gathering.

6.5. Geographical scope of impacts including on international relations

Due to the fact that investigation of accidents in civil aviation may involve both EU and non-EU countries, it is necessary to assess the scope and intensity of international impacts of the policy options considered.

Policy Option 2 "Promotion of voluntary cooperation"

Justification of the rating

[114] Environmental impacts estimate to what extent the proposed measures will lead to additional emissions (or reduction of emissions) of carbon dioxide or other greenhouse gas emissions

[115] http://ec.europa.eu/justice_home/unit/charte/index_en.html

[116] ICAO Working Paper, DGCA/97-IP/5, "Safety Oversight, An International Responsibility", 20 October 1997

This policy option is expected to have **no impacts** on international relations.
Policy Option 3 "European Network of Civil Aviation Safety Investigation Authorities"

Assessment criteria	*Justification of the rating*
International impacts	This policy option is expected to have **small impacts** on international relations. MS would continue to appoint accredited representatives (on the basis of the common criteria). EASA would be allowed to be represented in accident investigation in the EU and to join a MS appointed accredited representatives in case of accidents occurring outside of the EU where the interests of the Agency are involved.
Policy Option 4 "European Civil Aviation Safety Board"	

Assessment criteria	*Justification of the rating*
International impacts	This policy option is expected to have **significant impacts** on international relations. The European Safety Board would not only conduct investigations in the EU but also participate, through accredited representatives, in accident investigation led by third countries and liaise with the foreign accident investigation authorities. In addition, similar to policy option No 3, EASA would be allowed to be represented in accident investigations both in the EU and overseas where the interests of the Agency are involved. This policy option would necessitate notification of ICAO by all the MS about the delegation of responsibilities in accident investigation to the European Safety Board.

6.6. Risk analysis

The analysis which follows identifies and examines risks associated with implementation of each policy option.

Policy Option 2 "Promotion of voluntary cooperation"		
Assessment criteria	***Rating***	***Justification of the rating***
Implementation risks and obstacles to compliance	0	Due to voluntary nature of this policy option, there are no substantial additional risks associated with its implementation.
Policy Option 3 "European Network of Civil Aviation Safety Investigation Authorities" Policy Option 4 "European Civil Aviation Safety Board"		
Assessment criteria	***Rating***	***Justification of the rating***
Implementation risks and obstacles to compliance	- √	Practical implementation of the established principles relating to cooperation between judicial authorities and NSIA, including in the area of evidence gathering and protection of certain safety related information is expected to be a sensitive issue.
	- √	Accountability of addresses from third countries for assessing and replying to safety recommendations issued by the EU NSIAs cannot be guaranteed.
	- √	**(Only Option No 4)** Certain risks exist related to acceptance by third countries of accredited representatives appointed by the European Safety

		Board (experiences with EASA show that these risks can be managed).
	- √√	**(Only Option No 4)** High risks are associated with this policy option, which involves significant reform of the European system for civil aviation accident investigation. The European Safety Board would have to efficiently operate as an IIC in 27 jurisdictions of the MS. These risks are expected to be particularly high in the initial phase of the operation of the European Safety Board.

7. COST-EFFICIENCY AND ADMINISTRATIVE BURDEN

Safety risks can be reduced and managed but not eliminated completely. Also drastic risk reduction cannot be often achieved without incurring prohibitive costs. On the other side significant safety benefits can be sometimes achieved with relatively low costs (for example by ensuring that all the necessary safety data and information is shared amongst the interested parties). Cost benefit analysis is thus necessary for all the policy options.

The below analysis addresses costs associated with implementation of the policy options by commercial operators, national authorities and the Community. It does not cover costs associated with the implementation of safety recommendations - this analysis has to be conducted on a case by case basis by the addressee of the recommendation and is beyond the scope of this IA.

Policy Option No 2 "Promotion of voluntary cooperation"

This policy option relies on the already existing cooperation between the NSIAs. It does not envisage establishment of new structures at the Community level and builds on the resources available in the MS. The implementation risks and administrative burden of this policy option is thus expected to be negligible. As far as costs of implementation are concerned, the only additional cost would be an annual grant from the Community budget to support the coordination functions of the NSIAs.

The costs incurred by the MS would not rise substantially. Already now the NSIAs cooperate regularly within the framework of the Council of European Safety Investigation Authorities. On the other side, support of the Community for development of a mechanism for sharing of resources between NSIAs or coordination of training is expected to bring savings and economies of scale and thus reduce the overall costs of functioning of NSIAs.

The size of the annual grant, which would cover mainly items related to administrative management, is estimated at between 500.000 and 600.000 EURO in the initial year of operations. This is comparable to the costs incurred by the Commission to finance the administrative management of the Community civil protection mechanism.[117] According to the principle of co-financing applicable to the grants from the Community budget, the total annual contribution for all the MS would similarly reach at the maximum between 500.000 and 600.000 EURO.

[117] Commission Decision of 18.12.2008 on the annual work programme for the actions to be financed in 2009 pursuant to Council Decision No.2007/162/EC, Euratom establishing a Civil Protection Financial Instrument (C(2008)8411)

This policy option is not expected to involve any additional costs or administrative burden for the industry.

Policy Option No 3 "Establishment of the European Network of Civil Aviation Safety Investigation Authorities"

Similarly to the previous policy option, the establishment of "the Network", although in this case enshrined in law, would not necessitate establishment of new structures or significant administrative burden for the Community, NSIAs or industry. It is based on the already existing cooperation and resources available in the MS. The main cost for the Community budget would be the annual grant assigned to support "The Network".

The size of the annual grant, which would cover mainly items related to administrative management, is estimated at between 500.000 and 600.000 EURO in the initial year of operations. This is comparable to the costs incurred by the Commission to finance the administrative management of the Community civil protection mechanism.[118] According to the principle of co-financing applicable to the grants from the Community budget, the total annual contribution for all the MS would similarly reach at the maximum between 500.000 and 600.000 EURO.

Savings are expected for the NSIAs as a consequence of the establishment of a central mechanism for sharing resources, coordination of training activities and closer cooperation and exchange of data between the NSIAs. This policy option would also benefit the MS by providing more legal certainty and predictability in relation to issues such as support in accident investigation, access to information and responsibilities of the various parties involved in the investigation.

Compared to the previous policy option, additional administrative burden for at least some of the MS could be expected due to establishment of a common process for managing safety recommendations as well as ensuring that the authorities involved in accident investigation cooperate appropriately within the framework of advance arrangements.

Some additional costs for the MS can be expected due to more frequent meetings of "the Network" and its technical groups, as well as from new requirements concerning monitoring of processes for the management of passenger manifests by the airlines. Some additional costs for the MS can be also expected due to the need to fulfil the common requirements concerning minimum standards for the provision of assistance to victims of air accidents and their families.

No substantial administrative burden or implementation costs are expected for the operators and the industry. Harmonisation of standards for passenger manifests should be considered as codifying already existing practices rather than imposition of a completely new requirement.

Compared to policy option No 2, this policy option would provide for additional safety benefits through more structured cooperation between the NSIAs, better protection of evidence and sensitive safety information, defining the rights and obligations of EASA and NSIAs in accident investigation and establishing a common process for managing safety recommendations. Standards for management of passenger lists would be also harmonised, thus reducing the risk of an investigation

118 *idem*

or search and rescue operation being hampered by the lack of a reliable list covering "all souls on board". Similarly minimum requirements concerning assistance to the victims and families would provide additional social benefits for the EU citizens.

Policy Option No 4 "European Civil Aviation Safety Board"

This policy scenario, from the EU wide perspective, would be expected to offer the most significant safety benefits. Investigation of all major accidents would be performed by a single, independent, specialised body on the basis of common methodology and by centrally trained investigators. At the same time this is also the most costly policy option and the one affected by the highest implementation risks. It would necessitate a substantial overhaul of the current regulatory framework and establishment of a new Community body in the form of an Agency.

To calculate an estimate cost of implementation for this policy option, two main components have to be distinguished: (1) the costs of establishing and maintaining the central investigating body, and (2) the savings made at the level of Member States, deriving from substitution or significant downscaling of NSIAs.

Using the example of the US NTSB, it can be assumed that about 200 full time equivalent posts would be necessary in order to secure proper staffing of the central body.[119] Given the fact that the European Safety Body would be a Community agency, the "average costs" for the estimates on human resources in the context of EU legislative proposals have to be used in this context.[120] This would give a figure of about €25 million for staff costs. In addition, the most substantial costs to be covered under this policy option would include operational expenses: leading of investigations and participation in investigations as an accredited representative, investigation equipment, examinations, research and publications. In this respect, the total costs associated with the establishment of the European Safety Body can be estimated at around €40 million.

Given the fact that the total annual costs of the combined 27 NSIAs in the EU can be estimated at €78 million[121], the annual savings expected from substituting the NSIAs with the central body would be in the order of €30 million. These savings would be however smaller, should the NSIAs continue to work in parallel as national offices of the European Safety Body. In this latter case, the NSIAs would also have to bear costs to comply with the common standards for training of investigators and conduct of technical investigations in their areas of competence. In this policy scenario the annual workload of the European Safety Body could be estimated at 70 investigations of aircraft with MTOM of at least 2.250kg, plus participation in investigation overseas as an accredited representative.

The administrative burden associated with this policy option would be also substantially higher than for previous policy options. The European Safety Body, as a Community body would be obliged to fulfil all the requirements of the EU law related to financial issues, staffing policy, internal audit, procurement policy etc.

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119 The Net costs of the aviation related activates of NTSB in 2008 were $42 million (National Transportation Safety Board, Fiscal Year 2008 and 2007 Performance and Accountability Report, http://www.ntsb.gov/publictn/2008/SPC0802.pdf, accessed on 11 May 2009)

120 European Commission guidelines on Preparation of the Legislative Financial Statement, http://www.cc.cec/budg/pre/legalbasis/pre-040-020_preparation_en.html

121 External impact assessment study, ECORYS Nederland BV and National Aerospace Laboratory NLR

No substantial implementation costs are associated with this policy option from the industry perspective. Harmonisation of standards for passenger manifests should be considered as codifying already existing practices rather than imposing a completely new requirement. At the same time the industry would benefit from a fully standardised investigation process.

Some additional costs for the MS can be expected due to the need to fulfil the common requirements concerning minimum standards for the provision of assistance to victims of air accidents and their families.

8. COMPARING THE OPTIONS

8.1. Which method was applied and how impacts have been weighted?

The above analysis presented various impacts of each of the policy options, including risks and obstacles to compliance. It is now necessary to compare the presented policy options in order to indicate which of them would bring the most added-value from the Community perspective taking into account the criteria of effectives, efficiency and proportionality.

In order to properly take into account the various dimensions of the analysis, a multi-criteria approach will be applied. This method is best suited to measuring trade-offs within and between the various policy options, especially between safety and cost-efficiency.

Multi-criteria analysis requires weighting in advance the importance of the various criteria, which inherently includes an element of subjectivity. For the purpose of this analysis the enhancement of safety in civil aviation, as an overriding objective in the context of this IA, is given the highest priority. At the same time the analysis takes into account that drastic risk reduction cannot be achieved without incurring prohibitive costs.

Criteria	Weighting	Criteria	Weighting
Safety impacts	√ = 4 points	Economic, social and environmental impacts	√ = 1 point
Implementation Risks	-√ = - 2 points	Impact on fundamental rights	√ = 1 point

As indicated in point 4.1.1, this IA does not attempt to monetise direct safety benefits resulting from implementation of the various policy options, as this would require the ability to meaningfully predict the level of reduction in the number of accident or incidents in civil aviation. Safety benefits should be rather looked at from the perspective of risk management, whereby the risks are quantified and reduced by appropriate mitigating measures if considered as not acceptable.

	"Voluntary cooperation"	"the Network"	"EU Safety Board"
Safety benefits	√ (4)	√√ (8)	√√√ (12)
Implementation risks	0	- √√ (-4)	- √√√√ (-8)
Economic, social and environmental impacts	√ (1)	√√ (2)	√√√ (3)

Impact on fundamental rights	√ (1)	√√ (2)	√√√ (3)
Annual costs for the Community	600.000€ (small)	600.000€ (small)	around 40 million € (high)
Annual costs for the MS	Expenditures up to 600.000€ for all the MS (co-financing of the grant) √ (net savings)	Expenditures up to 600.000€ for all the MS (co-financing of the grant) √ (net savings)	√√ to √√√ (net savings)
Costs for the industry	0	0	0
Administrative burden	0 (negligible)	√ (small)	√√ (moderate)

8.2. Results of the weighting between the policy options

Policy option of promotion of voluntary cooperation offers moderate safety benefits at a reasonably low cost for the Community budget as well as some savings for the MS. The administrative burden of implementation of this policy option is negligible. It also does not impose additional costs on the industry.

Establishment of the "European Network of Civil Aviation Safety Investigation Authorities" offers additional safety benefits as compared to the promotion of voluntary cooperation only. However it is also characterised by additional implementation risks (see above). The costs of implementation for the Community budget are comparable to the "Promotion of Voluntary Cooperation". The administrative burden for the MS may be however slightly higher in particular due to the new requirements concerning management of safety recommendations and coordination of different authorities involved in the investigation. Some additional costs for the MS are also expected due to the need to participate in the co-financing of the grant for “the Network”, as well as fulfilling new requirements concerning monitoring of processes for the management of passenger manifests by the airlines, and implementation of minimum requirements on assistance for the victims and families. On the other side savings are expected for the MS due to better coordination of investigation resources of NSIAs and more efficient cooperation between the various authorities involved in the investigation.

The last policy option (The European Safety Board), offers the highest safety benefits as compared to the other two policy options. However, it is also characterised by the highest implementation risks and cost for the Community budget. Although the administrative burden involved in this policy option is expected to be the highest, it is also envisaged that it could bring the biggest savings for the MS.

8.3. Which of the policy options has the biggest added value?

The Policy Option No 3, "Establishment of the European Network of Civil Aviation Safety Investigation Authorities" has the biggest added value form the Community perspective. It is the most proportional policy option which, while fully respecting the principle of independence of safety investigations, would allow, without establishing any new structures at the Community level, to significantly enhance the

overall efficiency of the current regulatory framework for civil aviation accident investigation in the EU.

This policy option is sufficient to adequately address all the problem areas identified in this IA, without going beyond what is strictly necessary. It can be implemented with relatively low cost for the Community budget and in addition is also expected to reduce the overall costs of the MS, while having little impact in terms of additional administrative burden.

By lending supporting to the already existing voluntary cooperation between the NSIAs, this policy option is also expected to have support from the stakeholders and MS, which should facilitate its implementation. The additional regulatory elements of this policy option, which would be enshrined in the new Regulation implementing this policy option, were also supported in the public consultations and in the recommendations of the "Group of Experts".

There are limited implementation risks related to this policy option, notably when compared to policy option No 4, and which are not expected to jeopardise the envisaged policy objectives. This policy option, by relying on co-regulation and support for voluntary cooperation, is also in line with the "Better Regulation" objectives of the Community. Using Regulation instead of a Directive is also expected to contribute to better implementation and eliminate the need for transposition measures.

9. MONITORING AND EVALUATION

9.1. Indicators and methods for the monitoring of the preferred policy option ("Establishment of a European Network of Civil Aviation Safety Investigation Authorities")

Indicators and methods allowing to measure progress made towards the achievement of the desired policy objectives will need to be established. These would include:

Increase the investigating capacity of the EU:

- The level of support provided by the central mechanism for sharing of resources;
- The overall annual costs incurred by the NSIAs;
- The percentage of investigations completed in the recommended 12 months period;
- The results of the "peer reviews" coordinated by "the Network";
- Training activities coordinated by the "the Network";

Reduce tensions between the authorities involved in accident investigations:

- Number of investigations, delayed or hampered due to lack of coordination between the authorities;
- Trend in occurrence reports filed by aviation professionals in the EU;

Clarify the role of Community in safety investigations:

- Number of cases where cooperation between EASA and NSIAs was not adequate;

Better implement safety recommendations:

– Number of safety recommendations registered in the central database of recommendations;

– Number of "closed" safety recommendations registered in the central database of recommendations;

Reduce risks from inadequate passenger manifests

– National authorities of the MS to check compliance of the scheme with the common requirements in the certification process of the airline and via regular inspections;

– Number of passenger manifests non-reconciled properly;

The administrative burden associated with reporting obligations is not expected to be high. MS already now provide to the Commission most of the relevant information, including occurrence reports and final reports from the investigations. Some new administrative burdens can be expected for the MS authorities due to the need to verify compliance of the operators with the minimum standards envisaged for the management of passenger manifests and implementation of minimum requirements on assistance for the victims and families.

Recommendations of the Group of Experts to advise the Commission on a strategy to deal with accidents in the transport sector (aviation)[122]

Since 1991 Aviation Safety Investigation Authorities have established coordination and meet regularly within an ECAC context. Additionally the aviation sector has had ten years experience of working with the provisions of Council Directive 94/56/EC, *"Establishing the fundamental principles governing the investigation of civil aviation accidents and incidents"*.

The Aviation Working Group's primary task was a review of Member State's experience of working within the framework of the Directive. In December 2004 the Aviation Working group sent a comprehensive questionnaire to Member States and detailed responses were received from 23 of the 25 States.

In early 2006 the Commission has launched a procedure for internally assessing the options for revision of Directives 94/56 and 2003/42. The Experts group's The Experts group's recommendations contribute to that exercise.

Present Situation

Information gathered from Member States confirmed that a number of issues arise in relation to safety investigation of aviation accidents and incidents such as:

– Difficulties and tensions between the safety investigation and judicial investigations;

– Issues in relation to the publication of Safety reports relating to accident and incident;

– Lack of a follow-up system for safety recommendations in most Member States and the fact that current reporting requirements are overly onerous and often a cause for delays of safety investigation of more important air transport accidents or incidents;

– In particular smaller Member States identify a need for European Union based training for investigators, both on the coordination of training and in relation to training standards;

As a result of this current situation the Commission is advised:

– to revise the Directive 94/56/EC taking into account the items Member States raised in relation to the Expert Groups request for information (see above), for example, relations with judicial proceedings, the protection of confidential aspects of investigations and the possibility to select the events that are to be investigated,

– to consider whether the *Memorandum of Understanding* between the accident investigation bodies and the State Prosecutor in the UK could be used as a model for a European wide initiative to resolve the current difficulties between the safety and judicial investigations,

– to introduce legislative protection from disclosure for confidential documents listed in Chapter 5.12 of Annex 13 to the Chicago Convention,

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[122] Experts participating in the work of the Aviation Working group were: Mr Ken Smart (UK) as chairman and Mr Paul Louis Arslanian (France). Ad hoc experts invited to this group were Mr Yves Benoist, Mr Kevin Humphreys, Mr Akrivos Tsolakis and Mr Lou Van Munster

– to introduce a legislative requirement that provides transparency in relation to official replies to and implementation of safety recommendations. The Commission is asked to initiate the establishment of a European database for safety recommendations for aviation;

– to formally recognise the coordination role of Aviation Safety Investigation Authorities in a European context;

Discussion of aviation experts identified a need for a more developed coordination structure for Safety Investigation Authorities involved in aviation accidents at European level, in the light of existing coordination *fora* as well as the establishment of the European Aviation Safety Agency.

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Annex III

List of the consulted parties and summary of the consultations

1. Consultations on the Internet website

(a) Ministries or Aviation Authorities (Ministry of Transport Germany, Civil Aviation Authority from Germany (LBA-GE) and Civil Aviation Authority from Iceland (CAA-IS));

(b) 2 Accident Investigating Bodies (AIBs) (Iceland and Poland);

(c) 6 Airline Operators (Air Berlin, KLM, Spanair, Swiss, Transavia and Virgin Atlantic);

(d) 1 labour Union (Filt-Cgil);

(e) 1 stakeholder association (European Helicopter Association);

(f) 1 University (Massey from New Zeeland);

(g) 1 aerodrome operator (Zurich Airport);

(h) 1 European not-for-profit organisation (Peopil);

(i) 6 private citizens

2. Replies to questionnaire distributed by external consultant

Respondent group	Number of replies
Civil Aviation Authorities	19
Accident Investigation Bodies	19
ATM/ANS Providers	20
Aircraft, engine and system manufacturers	9
Trade unions and associations representing employees	11
Other	9

3. Parties interviewed by the external consultant

(a) Direction Générale de l'Aviation Civile (DGAC, France);

(b) Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile (BEA, France);

(c) Civil Aviation Authority (CAA, United Kingdom);

(d) Air Accidents Investigation Branch (AAIB, United Kingdom);

(e) Hellenic Civil Aviation Authority (HCAA, Greece);

(f) Hellenic Air Accident Investigation & Aviation Safety Board (Greece);

(g) European Aviation Safety Agency (EASA);

(h) Eurocontrol;

(i) European Civil Aviation Conference (ECAC);

(j) Airbus Industries;

(k) Swedish Civil Aviation Authority (CAA, Sweden)

(l) Swedish Accident Investigation Board (Sweden)

(m) Estonian Ministry of Economic Affairs and Communications (AIB Estonia)

(n) Estonian Civil Aviation Authority (CAA, Estonia)

(o) Joint Research Centre (JRC, Italy)

(p) National Transport Safety Board, USA

(q) Civil Air Navigation Services Organisation (CANSO)

(r) International Air Transport Association (IATA)

(s) European Cockpit Association (ECA)

(t) International Transport Safety Association (ITSA)

Summary of the public consultations

Summary results of public consultations on the Internet

1. The Commission asked the respondents about their opinion on the need to revise the Directives 94/56/EC and 2003/42/EC:

   (1) 68% of respondents (i.e. 15) agreed with such a need;

   (2) 18% (i.e. 4) were against;

   (3) 9% (i.e. 2) stated to have no opinion;

   (4) The remaining has not replied to this question

2. Commission presented four policy option for the consideration of respondents

   (1) Option No 1 "Do Nothing"

   (2) Option No 2 "Promotion of voluntary co-ordination"

   (3) Option No 3 "Establishment of central functions"

   (4) Option No 4 "Establishment of a central European safety investigation body"

   Policy option 3 and 4 were most supported. However the latter was also the most controversial;

   Most of the suggested central functions were at least partially supported by the overwhelming majority of respondents.

   The need to look at the “total aviation system” (i.e. simplified and consistent rules across all domains) was stressed.

   Some stakeholders asked more chances for passengers to report, and the widest possible dissemination of safety information, among industry.

Summary results of consultations conducted by the external consultant

The respondents of the questionnaires were asked if they saw any problems in the current situation. Almost all of them are of the opinion that there are problems that need to be addressed. These problems can be divided into three categories:

– Occurrence reporting

– Incident and accident investigations

– Information gathering and dissemination

Occurrence reporting

The respondents indicated that there are problems in relation to occurrence reporting. They remarked that the development of the “Just Culture” is essential to create an environment in which everybody feels secure enough to file a report, without fearing criminalization. However, this should not result in a “Carte Blanche” for all involved parties. The creation/further development of a “Just Culture” throughout Europe can not be accomplished through the revision of the Directive 2003/42/EC alone, though it could facilitate this development. Some of the changes proposed by the respondents relate to the terminology of the Directive which should be clearer (gross negligence in article 8 for example). A clear definition of “Just Culture” was also advocated by some of the respondents.

Incident and accident investigations

A number of respondents mentioned that incidents that are reported are sometimes not investigated, due to a lack of resources. However, it is questioned by some of the respondents if it is effective to investigate all incidents.

Some respondents argued that in certain countries there are problems with the mobilization of investigators with sufficient detailed technical expertise. This does not apply to all European Member States. Some argued that this was caused by the variation in exposure to aircraft accidents and budgets. All of the respondents, apart from the AIBs, indicated that there is no central European mechanism that could arrange for the sharing of available investigators. The AIBs stated that initiatives are already developed by the AIBs themselves.

Another problem signalled by the respondents is the lack of common requirements for the training and qualifications of accident investigators. Again the AIBs mentioned that they themselves are already taking actions in this field.

As is the case with occurrence reporting, the development of the relation with judicial authorities is said to be essential for incident and accident investigation. Many of the respondents indicated that the involvement of judicial authorities often hampers the course of the investigations. These investigations should have as sole goal to learn and increase safety levels, without giving a "Carte Blanche". Cooperation with the judicial authorities is essential in order to spread the "Just Culture" throughout Europe.

It was also argued that there are discrepancies in the terminology used in the Directives, ESARR2 and ICAO. These mainly relate to the definition of occurrences and incidents, which could create confusion and an overlap in responsibilities.

Information gathering and dissemination

Many respondents indicated that there are problems in relation to obtaining and distributing information on a European level. One of the problems mentioned is that available recommendations are often not shared. Also it is seen as a problem that there is no mechanism that regulates the accountability for addressees to reply to safety recommendations. The lack of a central repository of accident investigations reports (e.g. abstracts of the reports, conclusions and recommendations) is seen as a problem by most of them. Most of the respondents agreed or partially agreed that the multitude of languages in which accident and incident reports are written forms a problem. ECCAIRS is seen as a possible solution for much of the problems in this field, but it has to be further developed.

Some of the respondents did agree that the safety recommendations do not take into account the associated consequences of these recommendations (such as cost effectiveness) and that this is a problem. However, many respondents argued that main goal of these recommendations should be safety and the addressees of the recommendations should work out how they can implement the recommendations as efficient as possible.

Options

The results of the questionnaire clearly showed that a revision of the Directives is desired by the respondents. They were asked on the possible effects and their preferred ranking of the following options:

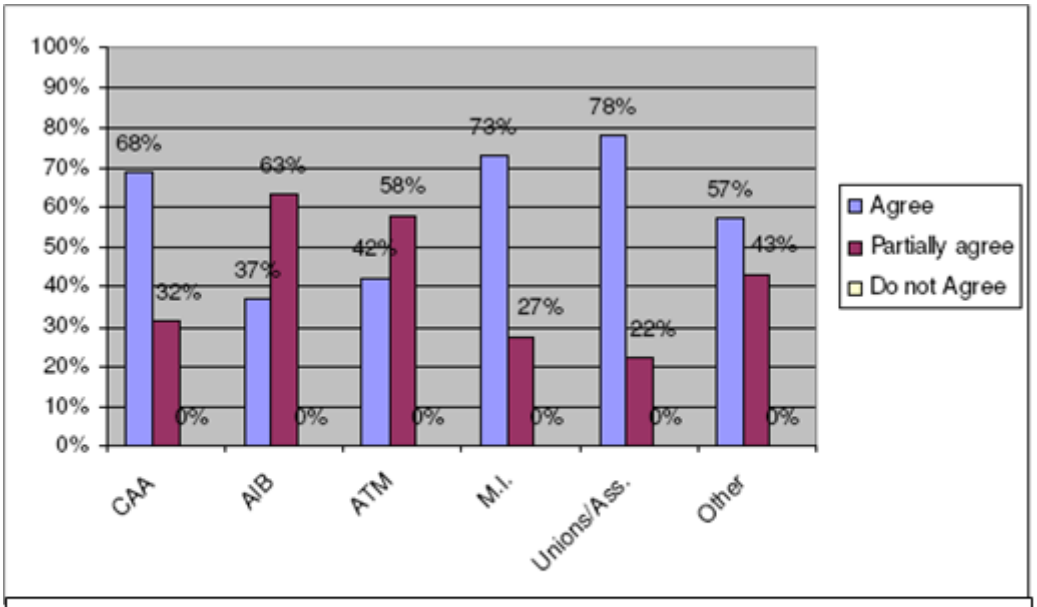
Option 1: "Do Nothing"

Option 2: Promotion voluntary coordination mechanisms among AIBs

Option 3: Modification of Directives: establish a set of central functions

Option 4: Establish a central European body on accident investigations

When asked on the possible effects, the respondents' answers show that Option 3 is expected to contribute the most in terms of positive safety effects. Option 2 is expected to have relatively neutral effects. Option 4 is expected to come at higher costs than Option 3, without showing any extra significant positive safety effects compared to Option 3. Option 3 was favoured the most by the respondents, though some indicated that this should be the first step in the direction of Option 4. The majority of the AIBs that responded preferred Option 2.



Opening hypothesis: There are shortcomings regarding the aviation accident and incident reporting and investigation practices in Europe.
Response (CAA 19, AIB 19, ATM 19, M.I.11, Unions/Ass.9, Other 7)

Central European functions

The majority of the respondent groups agree that most of the proposed functions should be addressed centrally in Europe. These functions include a Central European:

- Filing system of occurrence reports, in the context of a 'just culture'
- Common training and competence scheme for investigators
- European safety data repositories for investigation reports and recommendations serving AIBs, EASA, NAAs, Eurocontrol
- Summaries of investigation reports and recommendations can best be written in English (the majority of the unions/associations respondents partially agreed)
- Coordination mechanism that arranges for the sharing of investigators, meaning that member states could make use of the expertise of AIBs in other member states through a central coordination mechanism (40% of the AIB respondents disagreed)

– Mechanism that ensures that all safety recommendations, issued by national investigating authorities, are disseminated to all interest parties within Europe
– Mechanism that regulates the accountability for the addressees to reply to safety recommendations (the respondent group Other, mostly agreed partially)
– Mechanism that monitors the status of the implementation of safety recommendations (AIBs mostly agreed partially)

However with respect to "Investigation reports can best be written in an ICAO language (the concerned AIB can choose one of the three ICAO languages)" the respondents did not fully agree. This, because it is thought to be very important that reports are also written in the local language and local languages should not be discriminated against. A European translation agency was proposed to tackle this problem by making the reports available in a local language and in English.