

Criminalisation of air accidents and the creation of a Just Culture

By
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A INTRODUCTION

In air transportation the most crucial issue is safety. Article 44 of the Chicago Convention of 1944 stipulates that the overall objective of International Civil Aviation Organization (ICAO) is to ‘ensure the safe and orderly growth of international civil aviation throughout the world’.¹ Safety is a very complex, multi-faceted activity that encompasses all fields of aviation and affects every single individual involved in aviation. Accidents are the result of an undesirable chain of events. To prevent the repetition of such events, the investigation process requires an effective safety occurrence reporting system, which means that all relevant accidents and incidents are reported and comprehensively documented by aviation professionals. Therefore, aviation professionals must be dedicated and contribute fully to the safety investigation of the reported occurrences. ‘One of the most valuable tools in practice for the improvement of safety is the ability to learn from mistakes’.² Safety investigation reacts to the need to learn from accidents and incidents, and to take appropriate remedial actions to prevent similar occurrences.

In the aviation community there is an increasing concern over a perceived trend of authorities to initiate criminal prosecutions against aviation professionals. The fact that incident reports and material submitted in the course of safety investigations often find their way into separate judicial investigations has led to an increased fear amongst aviation professionals that routine operational decisions could now become the basis for criminal prosecutions. This is detrimental to aviation safety as it could, in turn, lead to a reduced willingness of occurrence reporting by those involved in such incidents or accidents. The chilling effect which potential prosecution has on openness and the flow of safety information following an aircraft accident or incident has an adverse effect on aviation safety and prevents lessons from being learned. This dilemma has impeded the effectiveness of safety investigations for decades.

George Santayana, a philosopher once said ‘Those who do not learn from history are doomed to repeat it’.³ The meaning of this statement reflects the objective of a so-called Just Culture which is aimed at preventing recurrence of accidents and incidents by encouraging active and transparent reporting of safety occurrences as well as full participation in safety investigation instead of punishing those involved.

The key of a Just Culture is to strike the right balance between the need to improve aviation safety and the recognition of the judicial system’s legitimacy to investigate and prosecute the

¹ Convention on International Civil Aviation (adopted 7 December 1944, entered into force 4 April 1947) 15 UNTS 295 [hereinafter: Chicago Convention] art 44.

² S Sharif ‘The Failure of Aviation Safety in New Zealand: An Examination of New Zealand’s Implementation of Its International Obligations under Annex 13 of the Chicago Convention on International Civil Aviation’ (2003) 68 *Journal of Air Law & Commerce* 339, 340.

³ DJ Piven and D Borgenicht and P Marchant *The Worst-Case Scenario Almanac: History* (Chronicle Books San Francisco 2006) 9.

committed crimes. At the heart of the establishment of a Just Culture lies three core principles.

Firstly, the determination of appropriate safeguards which will ensure that individuals involved in safety investigations are not punished for their reported actions or omissions. Secondly, the protection granted shall not apply to cases in which unacceptable behaviour is involved such as wilful misconduct or gross negligence. Thirdly, the improvement of aviation safety should be achieved by encouraging full contribution to safety investigations.

To ensure that the Just Culture concept works out effectively in practice, its principles have to be laid down in a suitable regulatory framework, which provides the indispensable legal certainty. This paper questions which form these principles should take in order to provide a Just Culture and whether these principles should be introduced by amending the current regulatory framework at international or European level or whether it should be left up to the national legislature to regulate.

B INTERNATIONAL REGULATORY FRAMEWORK

The ICAO was created in 1947 to promote the safe and orderly development of international civil aviation throughout the world. Article 26 of the Chicago Convention imposes an obligation on the State of Occurrence ‘so far as its laws permit’, to institute an inquiry into the accident in accordance with ICAO procedures and highlights the cooperation between the States involved.

1 Annex 13 to the Chicago Convention

Annex 13 to the Chicago Convention was first adopted by the Council on 11 April 1951 pursuant to Article 37 of the Chicago Convention and provides detailed Standards and Recommended Practices (SARPs) for aircraft incident and accident inquiries.⁴ The SARPs laid down in Annex 13 are aimed at complementing Article 26 of the Chicago Convention and provide for the procedures, not only to be applied in an investigation instituted under the requirement of Article 26, but also in the event of an inquiry into any ‘aircraft accident’ which falls within the provisions of Annex 13.

In view of the increasing criminalisation of aircraft accident investigation three aspects covered by Annex 13 are of considerable legal interest.

First of all, in the aftermath of an aircraft accident or incident various authorities are likely to be involved in the investigation. Annex 13 stresses, on the one hand, the need to coordinate the investigation with the judicial authorities,⁵ but on the other hand it ensures full

⁴ ICAO *Annex 13 to the Convention on International Civil Aviation, Aircraft Accident and Incident Investigation* (9thedn ICAO Montréal 2001) [hereinafter: Annex 13].

⁵ Standard 5.10 of Annex 13.

independence in the conduct of the investigation by the investigation authority.⁶ In addition, Annex 13 recommends that ‘any judicial or administrative proceedings to apportion blame or liability should be separated from any investigation under the provisions of this Annex’.⁷ The sole purpose of an accident or incident investigation within the meaning of Annex 13 is the prevention of future accidents and incidents but not to apportion blame or liability.⁸

Secondly, Standard 5.12 of Annex 13 refers to the non-disclosure of certain types of records which are collected by safety investigation authorities. The main objective of this Standard is to prevent the misuse of the safety-related data by parties conducting concurrent investigations serving a purpose other than aviation safety. However, the protection offered is apparently not absolute. The disclosure of safety information may be allowed when ‘the appropriate authority for the administration of justice in that State determines that the disclosure outweighs the adverse domestic and international impact such action may have on that or any future investigation’.⁹ Against this background, the problem arises that the right of decision-making granted to the ‘appropriate authority’ implies a subjective discretion as to when disclosure outweighs the adverse impact of non-disclosure on aviation safety. As a consequence, this provision creates uncertainty by leaving the final decision on the disclosure to the national authority for the administration of justice.

Finally, Annex 13 requires the establishment of a mandatory incident reporting system to facilitate the gathering of information on safety deficiencies.¹⁰ Further, the introduction of a voluntary incident reporting system to ensure the collection of information which is not covered by the mandatory system is also desirable.¹¹ In case the State decides to establish such a voluntary system, it is under the obligation to provide a non-punitive system and to implement measures to protect the sources of information.¹² The ICAO Safety Management Manual¹³ provides guidance in respect of mandatory and voluntary incident reporting. These three aspects of Annex 13 are crucial in balancing the improvement of aviation safety on the one hand and the proper administration of justice on the other hand.

2 Amendment 11

Due to the fact that aviation is a rapidly developing area, Annex 13 has been amended eleven times since 1951. The latest revision to Annex 13, Amendment 11,¹⁴ emphasised the need to develop appropriate legal guidance that will assist States to enact national rules to protect information from safety related data collection and processing systems (SDCPS), while

⁶ Standard 5.4 of Annex 13.

⁷ Recommendation 5.4.1 of Annex 13.

⁸ Standard 3.1 of Annex 13.

⁹ Standard 5.12 of Annex 13.

¹⁰ Standard 8.1 of Annex 13.

¹¹ Recommendation 8.2 of Annex 13.

¹² Standard 8.3 of Annex 13.

¹³ ICAO *Safety Management Manual (SMM)* (2nd edn ICAO Montréal 2009) Doc 9859.

¹⁴ Was adopted by the Council at the seventh meeting of its 177th Session on 3 March 2006.

allowing for the proper administration of justice in the State.¹⁵ The protection of this safety information from inappropriate use should contribute to the enhancement of aviation safety. In the form of a series of principles this legal guidance is incorporated into Annex 13 as a new Attachment E. Therefore, Notes were added to Standard 5.12.1 and Standard 8.3.

3 Shortcomings of the system and Annex 13

A number of safeguards have been introduced in Annex 13 to the Chicago Convention in order to protect, inter alia, those reporting safety occurrences in the course of a safety investigation. However, in most instances the degree of legal protection effectively offered in the Member States is much lower than what is implied by the text of the applicable regulations.¹⁶ The dearth of effective legal protection is inherent in the very nature of these regulations.

(a) Shortcomings of the system

The Annexes to the Convention are not an integral part of the Convention and they are therefore not subject to the general international law of treaties¹⁷. In contrast to the provisions of the Chicago Convention, the SARPs contained in the Annexes are not directly applicable at national level and require appropriate measures to implement them into the existing domestic legislation. Consequently, SARPs do not possess a legal force equal to that of the Chicago Convention. Apart from a handful of exceptions,¹⁸ Contracting States are neither obliged to implement nor to comply with the standards of an Annex if such a State finds it impracticable to do so.¹⁹ In this respect, each Contracting State has the exclusive decision-making power to determine what has to be considered as ‘practicable’.²⁰

The only international obligation Contracting States have pursuant to Article 38 of the Chicago Convention is to give immediate notification to ICAO, if they find it impossible to bring its own domestic regulations in line with the Annexes, and ICAO must then inform all other Contracting States of the difference. Unlike international Standards, Recommended Practices are only ‘desirable’; States should only ‘endeavour’ to conform to them and there is no legal duty to notify any instances of non-compliance with the Recommended Practices.²¹

¹⁵ ICAO ‘35th Session Resolutions Adopted by the Assembly (Montréal, 28 September to 8 October 2004)’ provisional edn (October 2004) 72.

¹⁶ F Schubert ‘Legal Barriers to a Safety Culture in Aviation’ (2004) XXIX *Annals of Air & Space Law* 19, 49.

¹⁷ Vienna Convention on the Law of Treaties (adopted 23 May 1969, entered into force 27 January 1980) 1155 UNTS 331.

¹⁸ For instance, according to Article 33 of the Chicago Convention certificates of airworthiness and personnel licenses only have to be recognized as valid by other Contracting States if they are equal or higher than the minimum ICAO as laid down in the Annexes.

¹⁹ According to Article 37 of the Chicago Convention, the Contracting States only have ‘to collaborate in securing the highest practicable degree of uniformity in regulations, standards ...’.

²⁰ M Milde ‘International Air Law and ICAO’ in M Benkö (ed) *Essential Air and Space Law* (Eleven International Publishing Utrecht 2008) vol 4, 159.

²¹ ICAO ‘36th Session Resolutions Adopted by the Assembly (Montréal 18 to 28 September 2007)’ provisional edn (September 2007) 20.

Considering the lack of legally binding force of Recommended Practices and the possibility to notify differences to Standards, this system followed by ICAO does not provide effective legal protection and is to be considered as legally weak.

The situation is further exacerbated by the fact that many States failed in their legal obligation to notify their departure from or non-implementation of the SARPs. This silent treatment of the SARPs was passively tolerated by ICAO, not least because ICAO has no machinery or procedure for the enforcement of compliance with the SARPs at its disposal. In fact, the enforcement depends on the willingness of the States. As far as Annex 13 is concerned, this development towards non-compliance with international Standards by Contracting States without notifying differences came to light in a survey conducted by the EUROCONTROL Performance Review Commission (PRC). The resulting statistics showed that one third of the States decided not to incorporate Standard 5.12 of Annex 13 into national law and half of those States have not notified ICAO accordingly.²² This alarming situation was described appropriately by Michael Milde as follows: ‘ICAO moves ahead like a fast locomotive happy with its speed but without noticing that many wagons of the train have become unhitched and stay behind.’²³ The implementation of ICAO standards can be compared with the ‘Emperor’s new clothes’, meaning ‘while everybody was praising the clothes, the Emperor was actually naked’.²⁴

In order to monitor the compliance with SARPs, numerous initiatives such as the US Internal Aviation Safety Assessment Programme (IASA) in 1992 and the launch of ICAO’s Universal Safety Oversight Audit Programme (USOAP) in 1999 have been undertaken.²⁵ In the latter programme, ICAO conducts on-the-spot evaluation of the effective implementation of ICAO SARPs as well as their guidance material and publishes the results of the audits on its website. The enforcement ‘power’ derives from the fear of loss of credibility within the international community through the publication of their failures in the implementation of SARPs.²⁶ Even though this ICAO audit programme can be regarded as ‘a milestone towards a new air safety regime’,²⁷ its success still hinges on the willingness of the Member States to contribute. The Chicago Convention does not provide ICAO with an executive function to control the

²² EUROCONTROL *Legal Constraints to Non-punitive ATM Safety Occurrence Reporting in Europe* (PRC Report) (EUROCONTROL Brussels 2002) 10.

²³ M Milde ‘Enforcement of Aviation Safety Standards – Problems of Safety Oversight’ (1996) 45 *Zeitschrift für Luft- und Weltraumrecht* 3, 7.

²⁴ J Huang *Aviation Safety and ICAO* (Kluwer Law International Alphen aan de Rijn 2009) 70.

²⁵ ICAO ‘Assembly Resolution A32-11: Establishment of an ICAO Universal Safety Oversight Audit Programme’ (September 1998).

²⁶ M Milde ‘International Air Law and ICAO’ in M Benkö (ed) *Essential Air and Space Law* (Eleven International Publishing Utrecht 2008) vol 4, 169.

²⁷ J Huang ‘Aviation Safety, ICAO and Obligations Erga Omnes’ (2009) 8 *Chinese Journal of International Law* 63, 69.

compliance with the SARPs.²⁸ To fully respect the sovereignty of the Member States the audit by ICAO can only be conducted with the consent of the Member States.²⁹ In addition, the audit findings cannot be published without the permission of the Member States.

Further, another legal barrier which hinders the effectiveness of the system is the supremacy of domestic law over any procedures which may be established by ICAO underlined in Article 26 of the Chicago Convention. An inquiry into the circumstances of the accident should be instituted solely in accordance with procedures set out by the ICAO in 'so far as its law permits'.³⁰ This Article consequently offers an escape hatch in the event that the States prefer to follow their own well-established procedures and techniques and thus further weakens the safeguards introduced by ICAO.

To conclude, Article 26 and Article 38 of the Chicago Convention grant a great freedom of decision making to the Contracting States enabling them to disregard the international law. The system allows the Contracting States not to apply these provisions if they wish to do so. This may result in a conflict of law, if the Member State where the accident occurs applies different regulations and procedures. The option to opt out of a Standard and to follow domestic laws leads to a patch-worked application of international law which has an adverse impact on the uniformity and effectiveness of the safeguards as provided in the Chicago Convention and Annex 13. Consequently, this non-unified law, which may or may not be applicable to all States, and the lack of enforcement power to monitor and sanction failures of filing differences raises doubts of the effectiveness of this system. Acknowledging the problem, ICAO has introduced USOAP which records success in advancing aviation safety. Nevertheless, it remains to be seen if this tool can effectively reduce the shortcomings of safeguards existing in the current system. One criticism in this respect is that the USOAP is based on the voluntary contributions of Member States and does not provide any enforcement measures. The only form of pressure is the fear the Member States may have of getting a bad reputation in relation to their safety standards in the aviation community. However, this can be theoretically circumvented by refusing the publication of the outcome of the audit. On the other hand, it may be argued that the refusal to publish in itself or more generally the refusal to cooperate with the ICAO's audit could be sufficient to raise suspicion within the aviation community which in the worst case could lead to the Member State being registered on the list of banned carriers by other States.

Nevertheless, it would be too premature to withdraw ICAO rules any efficacy. It is not so much a question of legal validity or enforceability, rather the actual effectiveness is the

²⁸ ICAO 'Safety Oversight Programme – Implementation in 1999–2001 Triennium (Presented by Angola, Australia, Bolivia, Canada, Egypt, India, Indonesia, Mexico, Pakistan, and Saudi Arabia)' (18 February 1998) C-WP/10832.

²⁹ For instance, by signing a bilateral Memorandum of Understanding with ICAO; ICAO 'Assembly Resolution A32-11: Establishment of an ICAO Universal Safety Oversight Audit Programme' (September 1998) [I-56].

³⁰ Art 26 of the Chicago Convention.

strength of these rules.³¹ The significance of ICAO rules in practice illustrates the ‘hushkits’ procedure in 2000. The US filed a complaint before the ICAO Council pursuant to Article 84 of the Chicago Convention and alleged that the European Council Regulation 925/99 infringes provisions of the Chicago Convention as well as its Annex 16 in that it limits the operation and registration of hushkitted aircraft in the EU.³² Finally, the EU withdrew this Regulation and adopted Directive 2002/30/EC which repeals the Regulation in dispute.³³ As this Directive reflects the principles as laid down in Resolution A 33-7 by ICAO such as the balanced approach of airport noise management,³⁴ the significance of ICAO standards and ‘the weight of its policy guidance’ becomes apparent.³⁵

(b) Shortcomings of Annex 13

As far as Annex 13 is concerned, it does not provide an effective protection for the reporter of safety occurrences and the safety information itself. The introduction of Amendment 11 has not improved this situation since it is confined to describing an ideal environment without providing binding international provisions.

What is the reason for such a failure to provide the necessary protection regarding the disclosure of safety related information?

International organisations only have those competences which are delegated to them by the founding treaty. According to Article 37 (2) of the Chicago Convention, the ICAO is competent to adopt SARPs in the field of investigation of aircraft accidents and ‘other matters concerned with the safety, regularity and efficiency of air navigation’. The protection of safety information as well as its sources, which can be misused as evidence in a criminal trial, does not fall under the scope of the competence granted regarding aircraft accident investigation, nor is it directly linked to aviation safety. As a consequence, this protection remains an exclusive competence of the Contracting States making a harmonised approach in this field unlikely.

Due to the shortcomings which are not only inherent in the system of the Chicago Convention itself but also in Annex 13, binding legal obligations which ensure the protection of sensitive safety information and those reporting safety occurrences cannot be implemented at international level. Because of the lack of competence and enforcement measures, the

³¹ L Weber ‘Internationale Organisationen’ in S Hobe and N von Ruckteschell (eds) *Kölner Kompendium Luftrecht Band 1 Grundlagen* (Carl Heymanns Verlag Köln 2008) 55.

³² ICAO ‘Council – 166th Session Summary of Decisions’ (19 June 2002) C-DEC 166/12 [9].

³³ European Parliament and Council Directive 2002/30/EC of 26 March 2002 on the establishment of rules and procedures with regard to the introduction of noise-related operating restrictions at Community airports [2002] OJ L85/40.

³⁴ ICAO ‘33rd Session Resolutions Adopted by the Assembly (Montréal 25 September to 5 October 2001)’ Provisional Edition (October 2001) [A33-7].

³⁵ EW Stimpson ‘ICAO: Recent Accomplishment and Challenges Ahead’ [2001-2004] *Issues in Aviation Law & Policy* 13251, 13256.

safeguards in this field are limited to best practices. Therefore, the next issue to be addressed is whether the European regulatory framework compensates for the defects of the international framework. In other words, does the necessary protection of safety related information exist at European level?

C EUROPEAN REGULATORY FRAMEWORK

The European framework dealing with aircraft accident and incident investigation consists of the Directive 94/56/EC³⁶, Directive 2003/42/EC³⁷ and the guidance material provided by EUROCONTROL, including, inter alia EUROCONTROL Safety Regulatory Requirement (ESARR) 2³⁸. At the end of this year Directive 94/56/EC will probably be replaced by the EU Proposal on aircraft accident and incident investigation³⁹.

1 Directive 94/56/EC

At the European level, initiatives have been taken to create a common binding framework for air accident and incident investigation. Directive 94/56/EC establishes the fundamental principles governing the investigation of civil aviation accidents and incidents and transposes the main principles of Annex 13 to the Chicago Convention into EU legislation.

Directive 94/56/EC requires that each Member State shall ensure that every accident or serious incident in civil aviation is subject to an investigation conducted or supervised by a permanent body or entity. The body or entity concerned with accident investigation shall be functionally independent.⁴⁰ Further, the Directive also provides for investigations of incidents which have not reached the degree of severity of a serious incident ‘when the investigation body may expect to draw air safety lessons from it’.⁴¹ As set out in Annex 13, the Directive also stresses that the sole aim of the technical investigation is to prevent future accidents to happen and not to apportion blame or liability.⁴² Safety recommendations should not express an assumption of blame or liability for an accident or incident.⁴³

In addition, the Directive enables investigators to carry out their tasks more efficiently by making the publication of the final report issued after every accident or incident reporting ‘in

³⁶ Council Directive 94/56/EC of 21 November 1994 Establishing the Fundamental Principles Governing the Investigation of Civil Aviation Accidents and Incidents [1994] OJ L319/14 [hereinafter: Directive 94/56/EC].

³⁷ European Parliament and Council Directive 2003/42/EC of 13 June 2003 on Occurrence Reporting in Civil Aviation [2003] OJ L167/23 [hereinafter: Directive 2003/42/EC].

³⁸ EUROCONTROL *ESARR 2: Reporting and Assessment of Safety Occurrences in ATM* (3rd edn EUROCONTROL Brussels 2009) [hereinafter: ESARR 2].

³⁹ Proposal for a Regulation of the European Parliament and of the Council on Investigation and Prevention of Accidents and Incidents in Civil Aviation, COM (2009) 611 final (28 September 2009) (Proposal) [hereinafter: the Proposal or the proposed Regulation].

⁴⁰ Art 6 of the Directive 94/56/EC.

⁴¹ Art 4 (1) of the Directive 94/56/EC.

⁴² Arts 1 and 4 (3) of the Directive 94/56/EC.

⁴³ Art 10 of the Directive 94/56/EC.

the shortest possible time' mandatory.⁴⁴ In respect to incident investigation, the resulting report has to be made available to 'parties likely to benefit from its findings with regard to safety'.⁴⁵ However, with regard to the need for protection of those reporting or involved in an incident, the Directive fails to provide any protection mechanism, apart from an injunction in Article 8 (1) to protect the anonymity of those persons named in the report.⁴⁶ In particular, it is to be noted that the Directive has not transposed Standard 5.12 which refers to the non-disclosure of certain types of records which are collected by safety investigation authorities. These obvious safety flaws in Directive 94/56/EC have led to a proposal of a Regulation on aircraft accident and incident investigation by the European Commission which should replace the current Directive.

In conclusion, the Directive succeeds in introducing the Annex 13 principle of separating technical from criminal investigation at European level. However, it fails to specify how such separation can be ensured. Moreover, this Directive remains silent on the disclosure of safety relevant data. As a consequence, the protection which should be achieved through the separation of both investigations is negated if the information collected in the course of technical investigation is at risk of being misused during a criminal trial.

Like in Annex 13, the protection concerning the result of the investigation is reduced to a pure declaration of intent without any specification how the protection should be guaranteed.

2 Directive 2003/42/EC

Beyond accident investigation, the crucial element in prevention of aircraft accidents is occurrence reporting and the analysis of the data collected in order to identify safety hazards and to draw safety lessons. Thus, in 2003, the Directive 2003/42/EC on occurrence reporting in civil aviation was adopted, which obliges aviation professionals to report errors, abnormal events and other irregular circumstances in their daily operational work.⁴⁷

In the Directive, the protection of the reporter differs significantly in the mandatory and the voluntary reporting system. Under the first solely the names and addresses of persons reporting occurrences are deleted,⁴⁸ whereas reporters under the voluntary reporting system in terms of Article 9 enjoy a greater level of protection. Member States which decide to introduce a voluntary reporting system in accordance with Article 9 are under an obligation to establish 'the conditions for the de-identified safety information' of the voluntary reports.⁴⁹ De-identification as defined in Article 2 (1) goes further than the simple erasing of names and addresses by requiring to remove 'all personal details pertaining to the reporter and technical

⁴⁴ Art 7 (2) of Directive 94/56/EC.

⁴⁵ Art 8 (1) of Directive 94/56/EC.

⁴⁶ EUROCONTROL *Just Culture Guidance Material for Interfacing with the Judicial System* (EUROCONTROL Brussels 2008) 34.

⁴⁷ Art 2 (1) and Article 4 (1) of Directive 2003/42/EC.

⁴⁸ Art 8 (2) in connection with art 4 (2) of the Directive 2003/42/EC.

⁴⁹ Art 9 (2) of Directive 2003/42/EC.

details which might lead to the identity of the reporter, or third parties, being inferred from the information'.⁵⁰ This approach pays attention to the fact that by having information about the circumstances of the occurrence, the investigating authorities can draw conclusions on the persons involved. The obligation to refrain from recording the names and addresses of the reporters under the mandatory reporting system can consequently not be considered as an effective means to guarantee that the identity of the reporter remains undetected.

As far as the balancing of the interests of the judicial and technical investigation authorities is concerned, Directive 2003/42/EC emphasises in line with Annex 13 that the prevention of accidents and incidents is the only objective of occurrence reporting and not to apportion blame or liability.⁵¹ Directive 2003/42/EC formulates in Article 8 (3) and Article 8 (4), for the first time at European level, safeguards which protect safety reporters in respect of judicial proceedings. Article 8 (3) states that the judicial proceedings should not be instituted in cases of 'unpremeditated or inadvertent infringements of the law which come to their attention only because they have been reported under the national mandatory occurrence-reporting scheme, except in cases of gross negligence'. However, this protection is stipulated to be without prejudice to the applicable rules of national penal rules with the consequence that in case of doubt the interest of the national judicial authority takes precedence over the individual protection of safety occurrence reporters.

On top of that, Article 8 (5) even preserves unhindered access of judicial authorities to safety occurrence information. Indeed, it appears that the introduction of these provisions actually increases the risk of prosecution of safety reporters by making the report of certain events mandatory which would otherwise not have been voluntarily reported without providing the required protection to the safety reporter.⁵² In the same way as Annex 13 and Directive 94/56/EC, Directive 2003/42/EC does not provide absolute protection due to the precedence of national penal laws over protection granted in the course of the technical investigation.

Furthermore, even though Article 8 (4) obliges Member States to ensure that 'employees who report incidents of which they may have knowledge are not subject to any prejudice by their employer', it is stressed again that the exact arrangements have to comply with the national procedures and practices.

3 ESARR 2

Member States of EUROCONTROL are obliged to implement and enforce the EUROCONTROL Safety Regulatory Requirement 'Reporting and Assessment of Safety

⁵⁰ Art 2 (2) of Directive 2003/42/EC.

⁵¹ Art 1 of Directive 2003/42/EC.

⁵² EUROCONTROL *Just Culture Guidance Material for Interfacing with the Judicial System* (EUROCONTROL Brussels 2008) 34.

Occurrences in ATM' (ESARR 2) into their own legal order.⁵³ ESARR 2 mandates the introduction of a harmonised occurrence reporting and assessment scheme and obliges the Member States to ensure the collection of appropriate safety related data and its communication to EUROCONTROL. The ESARR advisory material EAM 2/GUI 6 gives guidance on the 'establishment of "Just Culture" principles in ATM Safety data reporting and assessment'.⁵⁴ It sets out how to establish, implement and maintain a Just Culture in 8 steps.⁵⁵ The overall aim is to prepare employees for unpleasant situations in the wake of a safety-critical occurrence by formulating guidelines and pointing out potential barriers in the implementation process. The ESARR 2 principles have been transposed to great extent into the Directive 94/56/EC and Directive 2003/42/EC leading to increased legal effect due to the fact that after this transposition EU Member States are bound by ESARR principles and those which are also EUROCONTROL Member States are no longer able to opt out from certain rules of ESARR as determined in the revised EUROCONTROL Convention.⁵⁶

4 Concluding remarks

The review of the International and European legislative framework governing aircraft accident investigation leads to the conclusion that the existing system lacks the ability to provide a unified and efficient regime, when facing the conflicting interests. These shortcomings, due to a variety of reasons, have significant consequences. The need for adopting rules which adequately balance the interest of both, technical investigation and criminal inquiry cannot be ignored. At the International and European level, there are barriers which hinder the implementation of effective safeguards and which are difficult to overcome. One of the main obstacles is that the administration of justice including criminal law constitutes one pillar of state sovereignty and the Contracting States of the Chicago Convention as well as the Member States of the European Union have not exercised the option to delegate this sovereignty function. Criminal jurisdiction remains regulated by national laws. Consequently, harmonisation concerning the balance of these conflicting interests is hard to reach. Instead, the appropriate solution to reconcile these conflicting interests in order to provide for an appropriate administration of justice and enhance aviation safety must be found at the national level.

⁵³ EUROCONTROL *ESARR 2: Reporting and Assessment of Safety Occurrences in ATM* (3rd edn EUROCONTROL Brussels 2009).

⁵⁴ EUROCONTROL *ESARR Advisory Material 2/ Guidance Document 6: Establishment of 'Just Culture' Principles in ATM Safety Data Reporting and Assessment* (EUROCONTROL Brussels 2006) [hereinafter: EAM 2/GUI 6].

⁵⁵ *ibid*, 24.

⁵⁶ NA van Antwerpen *Cross-Border Provision of Air Navigation Services with Specific Reference to Europe* (Kluwer Law International Alphen aan den Rijn 2008) 55.

D CRIMINALISATION OF AVIATION ACCIDENTS

Recent years have shown a growing concern about the criminalisation of aircraft accident investigation, in particular the interpretation of aviation safety by the criminal judiciary. Surprisingly, there is nothing new about criminalisation of aviation accidents, which has already existed since the birth of aviation. It is a problem which goes back over 150 years. In the wake of a French hot air balloon accident in 1852 criminal sanctions were imposed against the pilot who caused the accident.⁵⁷ It is almost impossible to avoid the situation where the safety investigation and the criminal inquiry are conducted simultaneously. However, in order to find out how the conflicting interests can be adequately balanced, it is important to assess how different legislation deals with the problem of concurrent investigations and; more specifically, what the conflicting interests are and what the prerequisites for holding aviation professionals liable are.

1 Concurrent investigations

To analyse how different legislation resolve the conflict of interests between safety investigators and judicial authorities, it is important to assess which agency has the primary authority over the investigation and in the case of the interest of one agency prevailing, what the main reasons for this predominance are.

(a) France

The official body responsible for technical investigation of civil aviation accident and incidents on French territory is the BEA⁵⁸, an agency placed with the General Inspectorate of Civil Aviation within the Ministry of Civil Aviation. Book VII of the Civil Aviation Code, from Law No 99-243 of 29 March 1999⁵⁹ and its implementing regulation No 2001-1043 of 8 November 2001⁶⁰ make up the regulatory framework.

In France air accidents usually lead to criminal investigations when there are a large number of fatalities. The investigating judge who prepares the criminal trial receives support from the Gendarmerie du Transport Aérien and court-appointed experts.⁶¹ In the last two decades, the criminal investigation prevails over technical investigation, but that was not always the case.

The investigation process was originally characterised by close cooperation between the BEA and the judiciary.⁶² The technical investigation authority as well as the judicial authority were required to collaborate closely and refrain from using their formal powers to the disadvantage of the other authority. The key aspects for the coordination of both authorities are laid down

⁵⁷ A Van Wijk 'Criminal Liability of Pilots Following an Airline Accident: A History of the Issue Within the International Federation of Air Line Pilots' Associations (IFALPA)' (1984) IX Air Law 66, 66.

⁵⁸ Bureau d'Enquêtes et d'Analyses pour la sécurité de l'aviation civile [hereinafter: BEA].

⁵⁹ Code de l'Aviation Civile, issu de la Loi No 99-243 du 29 mars 1999.

⁶⁰ Décret d'application No 2001-1043 du 8 novembre 2001.

⁶¹ S Foreman 'Aviation Accidents and the French Courts' (2005) 20 Air & Space Lawyer 1, 15.

⁶² M Vigier 'Aircraft Accident Investigation Procedure - the French System' (1984) IX Air Law 5, 7.

in the joint ministerial instructions of 3 January 1953.⁶³ The close cooperation was to be built on trust and loyalty: This meant in practice the investigation authority was to establish the facts due to its expertise, whereas the judicial authority was expected to rely on these facts and to facilitate the investigators work as far as possible.⁶⁴

The turning point and the end of the cooperation between both authorities was the Airbus A320-111 crash at Habsheim, near Mulhouse, on 26 June 1988. During a demonstration flight of an air show the pilot flew at a low speed below 100 feet without noticing the forest at the end of the runway, where the aircraft finally crashed.⁶⁵ The resulting fire killed three passengers. In the course of the investigation the BEA took the flight recorders and when the recorders were returned, a few seconds recorded prior to the crash were missing. The BEA was therefore alleged to have tampered with the recorders in order to conceal a defect in the aircraft.⁶⁶ These suspicions were upheld for years resulting in an intense debate about the trustworthiness of the BEA. This was the last time that technical investigations took precedence over criminal proceedings.⁶⁷

The reason for the supremacy of criminal investigation lies in the special features of the French criminal law system and the French mentality.⁶⁸ According to French Law, in the event of an aircraft accident the judicial authority firstly seizes the Flight Data Recorder (FDR) and Cockpit Voice Recorder (CVR) and makes them available to the BEA so that it has the possibility to make a copy under the supervision of a police officer.⁶⁹ This procedure contradicts the spirit of Standard 5.12 of Annex 13 which explicitly states that the records derived from these devices should not be made available for purposes other than safety investigation unless an appropriate authority has determined that the proper administration of justice outweighs the adverse impact on aviation safety. The author's understanding is that this restriction refers to the possibility of being exempted from the non-disclosure of records, when the judicial authority finds that the circumstances of the particular case justify this exemption. Therefore, it is critical to allow the judicial authority to have these recordings at their disposal and to thereby encourage that these records are used for purposes other than safety investigation without explicitly justifying why the interest to administer justice prevails over advancing aviation safety. Furthermore, the BEA can only remove debris, fluids or pieces of wreckage for determining the cause and circumstances of the accident with the

⁶³ Instruction interministérielle du 3 janvier 1953 relative à la coordination de l'information judiciaire et de l'enquête technique et administrative en cas d'accident survenu à un aéronef français ou étranger sur le territoire de la métropole et les territoires d'Outre-mer.

⁶⁴ *ibid.*, 7.

⁶⁵ Commission D'Enquête 'sur l'accident survenu le 26 Juin 1988 à Mulhouse-Habsheim (Haut-Rhin) à l'Airbus A 320, immatriculé F-GFKC Rapport Final' (1990) 28 Journal Officiel de la République Française Édition des Documents Administratifs <<http://www.bea.aero/docspa/1988/f-kc880626/pdf/f-kc880626.pdf>> (22 July 2010).

⁶⁶ D MacKenzie 'Fresh Evidence Prompts Row over Airbus Crash' (1990) 1726 New Scientist 30, 30.

⁶⁷ S Foreman 'Aviation Accidents and the French Courts' (2005) 20 Air & Space Lawyer 1, 16.

⁶⁸ *ibid.*, 14.

⁶⁹ Book VII Chapter I Article L 721-2 of the French Civil Aviation Code (Code de l'aviation civile).

permission from the investigating judge and the examination of the objects should not lead to its destruction or alteration.⁷⁰

In this context, it is questionable whether Article 5 (2) of Directive 94/56/EC has been adequately transposed into French law. According to this Article the investigator in charge should be authorised to have, inter alia, free access to the accident site, flight recorders as well as other recordings and only ‘where appropriate, in cooperation with the authorities for the judicial inquiry’, which means that the judicial authority should only be involved when circumstances allow it.⁷¹ However, the requirement to first seek permission from the judicial authority in order to access the crash site and to analyse potential pieces of evidence contradicts the intention of Article 5 (2) of Directive 94/56/EC. Nevertheless, it would be premature to conclude that this provision has not been adequately transposed into national law as it offers an escape hatch by also stating that such powers must be exercised in ‘accordance with the legislation in force in the Member States’.

Another feature of the French criminal procedure law, which encourages the priority of criminal investigation, is the application of the Napoleon Code. This Code, not predicting the occurrence of aircraft accident at the time it was adopted, stipulates that fatal accidents must be investigated in order to establish blame. Criminal investigations may last up to 15 years so that the judicial authority can still continue for years after the BEA has concluded the investigation report.⁷² This gives the judicial authorities the opportunity to continue searching for the answer they are looking for, when they are not satisfied with the findings of the official report of the BEA.⁷³ In most cases, the extension of the investigation process is encouraged by the society which would like to see someone to be held responsible and punished for the fatalities. Influenced by the media, there is an increasing trend in France to move away from the need to reveal the real cause of the accident towards finding a scapegoat for what happened.⁷⁴

The motivation for the predominance is also deeply rooted in the public mindset that there is no certainty that the BEA is not influenced by the interests of the government or the civil aviation industry and it is consequently not ensured that its investigation has the sole purpose of improving aviation safety.⁷⁵ This argument is also based on the absence of statutory provisions ensuring the essential independence of the agency in charge of the technical

⁷⁰ Book VII Chapter I Article L 721-3 of the French Civil Aviation Code (Code de l’aviation civile).

⁷¹ Art 5 (2) of Directive 94/56/EC.

⁷² D Esler ‘Flight Risk: The Threat of Criminalization’ Aviation Week <http://www.aviationweek.com/aw/generic/story_generic.jsp?channel=bca&id=news/bca0309p1.xml> (22 July 2010).

⁷³ S Foreman ‘Aviation Accidents and the French Courts’ (2005) 20 Air & Space Lawyer 1, 16.

⁷⁴ *ibid.*

⁷⁵ Notes from the presentation given by Simon Foreman at the Royal Aeronautical Society Conference: ‘The Proposed EU Regulation on Air Accident Investigation; The Criminalisation of Air Accidents and the Just Culture’ (London 27 April 2010).

investigation.⁷⁶ Some judges fear that the involvement of technical investigations reduces the likelihood of successful judicial proceedings due to the risk that, for example, evidences are concealed.⁷⁷

Furthermore, it is believed that the overall objective of the investigation is to respect the rights of the families of the deceased passengers to hold the ‘perpetrators’ criminally accountable for their mistakes. In this respect, one peculiarity of French criminal procedures law is the right granted to victims to initiate criminal proceedings.⁷⁸ However, in most cases the prosecutors have already taken the initiative, when the victims decide to exercise their right. The judicial authority is therefore also regarded as an instrument to satisfy the rights of the victims.⁷⁹ From the French perspective, the rights of the victims are only respected when the interests of the judiciary prevail as the BEA is suspected of not being completely independent.⁸⁰

As a consequence, the judiciary has priority to investigate any object from the accident site that might be used as evidence which may delay and prevent the safety investigators from carrying out their investigation. This negative impact on the technical investigation can be illustrated by means of the inquiry into the Air France Concorde F-BTSC crash⁸¹ at Gonesse on 25 July 2000. The supersonic aircraft (SST) ran over a titanium strip on the runway, causing tires on one of the landing gear legs to explode and the resulting fragments hit the fuel tank and caused a major fuel leak, igniting the fuel. The stricken aircraft rotated off the runway but crashed into a nearby hotel, killing 113 people.⁸² The safety investigation was not only carried out by the BEA but also by the Air Accident Investigation Branch (AAIB) of the United Kingdom which was entitled to participate as a joint State of Manufacture. In addition, an immediate judicial inquiry was launched as well as the Minister of Transport sent his own panel of experts to advice him personally. In fact, three investigation teams had to compete for access to the physical evidence and the French police controlled access to the crash site on behalf of the judiciary leading to significant delays as well as hampered access to the crash site to the disadvantage of the safety investigator. On top of that, evidence was removed from the crash site before full technical investigation was conducted.⁸³

⁷⁶ Sénat session Ordinaire de 1998-1999, N° 205, Annexe au procès-verbal de la séance du 9 février 1999, Rapport fait au nom de la commission des Affaires économiques et du Plan (1) sur le projet de loi, adopté Par L'Assemblée Nationale, relatif aux enquêtes techniques sur les accidents et les incidents dans l'aviation civile par J-F Le Grand <<http://www.senat.fr/rap/198-205/198-2054.html>> (22 July 2010).

⁷⁷ *ibid.*

⁷⁸ S Foreman 'Aviation Accidents and the French Courts' (2005) 20 *Air & Space Lawyer* 1, 15.

⁷⁹ *ibid.*

⁸⁰ *ibid.*

⁸¹ BEA 'Accident on 25 July 2000 at La Patte d'Oie in Gonesse to the Concorde registers F-BTSC operated by Air France, Investigation Report by Bureau Enquêtes Accidents, f-sc000725a' <<http://www.bea.aero/docspa/2000/f-sc000725a/htm/f-sc000725a.html>> (22 July 2010).

⁸² *ibid.*, 14.

⁸³ The Royal Academy of Engineering, Accidents and Agenda 'An Examination of the Processes that Follow from Accidents and Incidents of High Potential in Several Industries and their Effectiveness in Preventing further Accidents, Full Sector Reports' (2005) 12 <http://www.raeng.org.uk/news/publications/list/reports/Accidents_and_Agenda_Full_Sector_Reports.pdf> (22 July 2010).

To conclude, the French criminal law system and the mindset of the French society clearly illustrate that the judicial authority gains the upper hand in the course of an investigation in France. This raises concerns in respect of the compliance with Annex 13 and the implementation of Directive 94/56/EC. Both require that the sole aim of the safety investigation is the prevention of future accidents and not to apportion blame or liability, but this objective is hard to realise, when the judicial authority has the power of disposition of all physical material relevant for the safety investigation and the crash site. Furthermore, the power of disposition granted to the judicial authority also infringes clearly Standard 5.4 and Standard 5.6 of Annex 13, according to which the BEA should have unrestricted authority over its conduct and unrestricted control over potential pieces of evidence. In particular, the BEA should have unhampered access to the wreckage and material originated from the accident. Even though the joint ministerial instructions of 3 January 1953 provides for the cooperation between both authorities, in accordance with Standard 5.10 of Annex 13, these instructions have proved to be ineffective since they lack a real legislative status and they are not used anymore in practice.⁸⁴

(b) United Kingdom

The Air Accidents Investigation Branch is an independent unit of the Department of Transport and responsible for investigating all accidents and serious incidents in accordance with the provisions of ICAO Annex 13. The sole purpose of the investigation, in accordance with Standard 3.1 of Annex 13 as well as Articles 1 and 4 (3) of Directive 94/56/EC, is to establish the causes of the accident and ensure the continued safety without apportion blame or liability. The power of the AAIB to investigate aircraft accidents and incidents originates from the Civil Aviation Act 1982. Furthermore, the Civil Aviation Investigation Air Accident and Incidents Regulations 1996 (SI 1996/2798) specify the procedures to be followed in an investigation and the powers of the investigators.

In carrying out their investigations, the inspectors have free access, inter alia, to the accident site and potential physical evidence such as the aircraft, its contents, its wreckage or the flight recorders and any other records.⁸⁵ Compared to France, the technical investigators in the UK, in line with Standard 5.4, have unrestricted authority to access the crash site and dispose of material which can furnish evidence. Furthermore, the inspectors are empowered to summon and question witnesses as well as to request and examine any books, papers, documents and articles which they consider as being relevant.⁸⁶ These inspectors also have control over the removal of debris and components and can take measures for the preservation of evidence.⁸⁷

⁸⁴ Sénat session Ordinaire de 1998-1999, N° 205, Annexe au procès-verbal de la séance du 9 février 1999, Rapport fait au nom de la commission des Affaires économiques et du Plan (1) sur le projet de loi, adopté Par L'Assemblée Nationale, relatif aux enquêtes techniques sur les accidents et les incidents dans l'aviation civile par J-F Le Grand.

⁸⁵ S 9 (1) of Air Accident Investigation Regulations 1996.

⁸⁶ S 9 (2) (a) of Air Accident Investigation Regulations 1996.

⁸⁷ Ss 9 (1) (b) and 9 (2) (e) of Air Accident Investigation Regulations 1996.

The question arises as to how the UK system of air accident and incident investigation handles the intervention of judicial authorities.

The approach in the case of concurrent investigations can be summarized as follows: air accident and incident investigation in the UK focuses on clear delineation on the one hand but cooperation between both technical and criminal inquiries on the other hand.⁸⁸

Following Recommendation 5 of Annex 13, the judicial proceedings aimed at apportioning blame or liability is separated from any safety investigation. This separation of the Crown Prosecution Service and the AAIB as well as the coordination of their investigating work is guaranteed and regulated by the 2008 Memorandum of Understanding between the three transport accident investigation agencies and the Crown Prosecution Service⁸⁹. The MoU stresses that ‘[t]he public interest requires that safety considerations are of paramount importance, the consequence of which may mean that the interests of an [A]AIB investigation have to take precedence over the criminal investigation.’⁹⁰

In the aftermath of an aircraft accident, the police pursue inquiries in order to establish whether there is sufficient evidence to justify criminal proceedings or if there are fatalities, the police may investigate on behalf of Her Majesty’s Coroner. When the AAIB and the police investigations proceed in parallel, the AAIB will cooperate with the police without either body hindering the other.

In order to comply with Standard 5.10 of Annex 13 and to improve the coordination between the police inquiries and the technical investigations the Lord Chancellor has provided guidance material entitled ‘Disasters and the Law - Deciding the form of inquiry’ in which he highlights the importance of cooperation by saying that:

[i]t would require firm indications of serious criminality to justify a criminal investigation taking precedence over an inquiry held in public Colleagues will wish to bear in mind that the holding of such an inquiry in advance of criminal proceedings may adversely affect the ultimate prospects of a successful prosecution, but nevertheless, unless the criterion mentioned in the previous sentence is met, this is likely to be justified.⁹¹

In addition, Her Majesty’s Coroner has a duty to hold an inquest into all circumstances of a sudden, violent or unnatural death including aircraft accident fatalities.⁹² In contrast to France, the Coroner’s Court has the mandate to consider the rights of the victim of the accident. In France, the only statutory body which can have this function is the criminal court.

⁸⁸ S 9 (1) of Air Accident Investigation Regulations 1996: ‘in cooperation with the authorities responsible for the judicial inquiry’.

⁸⁹ Hereinafter: MoU.

⁹⁰ MoU between the Crown Prosecution Service and the Air Accidents Investigation Branch, Marine Accident Investigation Branch, and Rail Accident Investigation Branch (October 2008) 1.

⁹¹ Thames Safety Inquiry *Final Report by Lord Justice Clarke* (Cm 4558, 2000) 160.

⁹² S 8 (1) of Coroners Act 1988.

The Coroner's Court, unlike the criminal court, does not attempt to determine any question of civil or criminal liability.⁹³ The investigations of the AAIB and the Coroner pursue different objectives, but they are still connected in relation to the factual information and evidence. Therefore, even though both authorities are separated, they work closely together in the investigation. For instance, the Coroner will be in touch with the progress of the investigations and may consult the inspectors in deciding which witnesses should be summoned.⁹⁴

To conclude, the investigation procedure in the UK is the opposite of the one in France. In the course of the safety investigation the AAIB has unrestricted authority to conduct the investigation and does not have to ask the judicial authority to access the crash site or to dispose of potential evidence. In contrast to France, there is a clear separation and the independence of all investigating parties is guaranteed by law. Furthermore, 'best practice' guidelines have been established enabling the inspectors of technical investigations to control any inquiry work at the accident site whilst integrating also the Coroner's inquiry and the judicial inquiry into their work in order to ensure effective cooperation. Unlike France the cooperation of both authorities does not only exist on paper, but is also carried out in practice. The investigation procedures and regulations followed in the UK do comply with the expectations of Annex 13 and go even further by regulating and ensuring the cooperation of both authorities in a MoU in order to avoid any derogation regarding the success of their investigation.

This approach to guarantee successful cooperation is exemplary, since it creates certainty between the parties and demonstrates the will to respect and not hinder each other. From a practical point of view, this system avoids delays in carrying out the technical investigation and ensures that the cause of the accident can be found and safety recommendations can be published as soon as possible without ignoring the proper administration of justice.

(c) Germany

In Germany, aircraft accident investigation was originally carried out for the exclusive purpose of criminal prosecution.⁹⁵ Already in 1931 *von Unruh* expressed his concern about the focus on criminal investigations, whereas the field of improving safety was receded into the background.⁹⁶ This focus becomes clear when considering the fact that the investigation procedures were not initiated when the suspected perpetrator lost its life in the accident. In

⁹³ CN Shawcross and KM Beaumont *Shawcross Beaumont: Air Law* vol 1 (4th edn Butterworths London March 2009) Chapter VI No 240.

⁹⁴ The Royal Academy of Engineering, Accidents and Agenda 'An Examination of the Processes that Follow from Accidents and Incidents of High Potential in Several Industries and their Effectiveness in Preventing further Accidents, Full Sector Reports' (2005) 9.

⁹⁵ W Guldemann 'Die Untersuchung von Flugunfällen' [1957] *Recht und Praxis* 1, 1.

⁹⁶ A von Unruh 'Zur Frage der Untersuchung von Flugunfällen' [1931] *Archiv für Luftrecht* 6, 7.

addition, aircraft accident investigation was exclusively subject to general provisions of criminal proceedings and was not regulated by specific provisions on aviation law.⁹⁷

Since 1998, the BFU⁹⁸ (Federal Bureau of Aircraft Accident Investigation) is the responsible body to investigate into civil aircraft accidents and serious incident in the territory of Germany and is subordinated to the Federal Ministry of Transport (BMVBS)⁹⁹. The ‘Magna Charter’ of safety investigation conducted by the BFU is the FIUUG¹⁰⁰ (Law Relating to the Investigation into Accidents and Incidents Associated with the Operation of Civil Aircraft). § 5 LuftVO¹⁰¹ (the Regulations for the Notification of Aircraft Accidents and Incidents) deals with the establishment of occurrence reporting systems.

Even though the BFU as higher federal authority is under supervision of the Federal Ministry of Transport,¹⁰² it is functionally and organizationally independent.¹⁰³ In order to ensure this independence and objectivity, instructions relating to the initiation, the content and scope of the investigation are not allowed.¹⁰⁴ In accordance with Standard 3.1 of Annex 13, Article 1 and Article 4 (3) of Directive 94/56/EC, the sole purpose of the investigation is to determine the cause of the accident and not to address the question of potential liability or blame.¹⁰⁵ However, the states’ right to prosecution, which is based on the principle of legality,¹⁰⁶ remains unaffected thereof. This effectively means that the investigation carried out by the public prosecutors (‘Staatsanwaltschaft’) with the object of clarifying the issue of blame should not lag behind the independent activities of the BFU with the aim of improving aviation safety.

The independence and separation of the investigation authorities may function well on paper, but is difficult to put into practice. At the beginning of the investigation both authorities have to document, photograph and secure potential pieces of evidence at the accident site. As far as the access to the scene of the accident is concerned, the Chief Investigator can only make decisions with the consensus of the public prosecutors so that the BFU has to be in constant contact with the judicial authority.¹⁰⁷ This required permission of the public prosecutors can already be seen as an infringement of Standard 5.4 of Annex 13 due to the fact that the authority of the BFU over its conduct is restricted. Consequently, the German procedure fails to comply with Annex 13 in this respect.

⁹⁷ *ibid.*, 8.

⁹⁸ Bundesstelle für Flugunfalluntersuchung.

⁹⁹ Bundesministerium für Verkehr, Bau und Stadtentwicklung.

¹⁰⁰ Flugunfall-Untersuchungsgesetz.

¹⁰¹ Luftverkehrs-Ordnung.

¹⁰² Art 87 (3) German Constitution (GG).

¹⁰³ § 4 (2) FIUUG transposes Article 6 Directive 94/56/EC into national law.

¹⁰⁴ § 4 (3) FIUUG.

¹⁰⁵ § 3 (1) and (2) FIUUG.

¹⁰⁶ The principle of legality is embedded in § 152 (2) Strafprozessordnung [hereinafter: StPO].

¹⁰⁷ CH Schubert and D Herriman *Handbuch der Flugunfalluntersuchung* (Springer Berlin 2005) 82.

Acknowledging the overlapping nature of both investigations, the legislator obliges the technical inspectors to collaborate with the public prosecutors in the exercise of certain powers. The BFU is even under the obligation to inform the public prosecutors, if in the course of the safety investigation, it suspects that an act of unlawful interference was involved in the accident or incident.¹⁰⁸ Furthermore, in accordance with German criminal procedures law, the BFU as an authority has to reply to the request for further information by the public prosecutors.¹⁰⁹ The public prosecutors have therefore the possibility to receive evidence which the BFU gathered, for instance, in the course of a witness interview. In this context, the problem arises that the witnesses are not informed about the right to refuse to give evidence (‘Zeugnis- bzw. Aussageverweigerungsrecht’)¹¹⁰ since the questioning is not an interrogation by the judicial authority. As a consequence, it can happen that self incriminating evidence is transmitted to the judicial authority which can be used in a criminal trial against the witness. This reporting requirement inhibits the risk that the witnesses are not willing to divulge any information or that they try to impede or hinder the access to evidence. Furthermore, this procedure also has the potential to be contrary to the rationale of Standard 5.12 of Annex 13 which allows the judicial authorities access to safety-critical information only under the condition that the appropriate authority determines the prevalence of the proper administration of justice over aviation safety. In the procedure as described above, it appears that the judicial authority has access to this information without demonstrating the predominance of its interest which could lead to an uncontrolled use of this sensitive data.

Despite the independence of the BFU from other governmental institutions in line with Standard 5.4 of Annex 13, the German technical investigation authority is far away from being an effective instrument to improve aviation safety. The judicial authorities have free access to the findings of the safety investigation at any stage of the proceedings. Even though the FIUUG emphasises that the sole objective of the investigation conducted by the BFU is to determine the cause without apportioning blame or liability, the safeguards to achieve this aim, namely the protection of reporters and records, are not provided. In fact, these objectives are, under the applicable law, only an empty shell.

As in France, the interests of the judicial authority prevail in the case of conflicting investigations. However, in Germany this predominance is not intended, it is rather a consequence of the lack of appropriate safeguards for reports or other persons involved in the accident or incident. The judicial authority has through the backdoor unhindered access to sensitive data which is protected by this Standard 5.12 of Annex 13. In contrast to France but like the UK, the investigation carried out by the BFU intends close cooperation with the judicial authority in accordance with Standard 5.10 of Annex 13. Even though this cooperation, unlike in France, functions well in practice, it is not specified in a MoU, as in the UK, or further elaborated in legal guidelines which give detailed instructions how to deal with

¹⁰⁸ § 7 FIUUG.

¹⁰⁹ § 161 (1) StPO.

¹¹⁰ § 52 (3) and § 55 (2) StPO.

conflicting interests. The foundation for this cooperation is primarily based on long-term practical experience and customs so that the same level of certainty as the UK cannot be guaranteed. Once again, aircraft accident investigation in Germany has to eliminate the shortcomings that exist in order to provide an adequate tool to enhance aviation safety. Nevertheless, it should be easier to remedy these deficiencies than the deficiencies in France due to the fact that the shortcomings in the German system derive from legal loopholes which are not always intended by the legislator and which the judicial authority use to promote their own interests. To change the mindset of the French people seems to be more complicated and time-consuming than to simply fill legislative gaps.

After analysing France, United Kingdom and Germany's approach, when technical and criminal investigations proceed in parallel, it becomes clear that even though the sole purpose of the investigations should be the enhancement of aviation safety, this objective is jeopardized by the supremacy of criminal investigation. The reasons for the precedence of criminal investigations seem to differ from country to country. The French society intends to prioritise the criminal investigation, whereas in Germany the same result is achieved due to the dearth of safeguards in its legal system despite their lack of intention to do so. This understanding is important in order to combat the criminalisation of air accident investigation. It shows that it is not always effective to change the law. The key lies rather in enhancing the understanding among judicial authority and the society for the importance of safety investigation and why it is alarming when these investigations are hampered by criminal inquiries. In the UK, the system has followed this approach and aims at creating an understanding for the predominance of safety investigation and the risks of concurrent inquiries carried out by the judicial authority. This understanding is laid down in a MoU and 'best practice' guidelines specifying the procedure when both inquiries are conducted in parallel. Consequently, the approach of the UK can serve as an example for the creation of mutual understanding and cooperation between both authorities.

E BALANCE OF LEGAL INTERESTS

The inevitable interaction of concurrent investigations leads to various competing legal interests which have to be delicately balanced. In this respect, the challenge is to find a compromise between the legal interests of each category without undermining the constitutional importance of each interest.

1 Enhancement of aviation safety versus proper administration of justice

The main focus is on the reconciliation of the public interest to enhance safety of civil aviation with the need of the proper administration of justice.

Experience has demonstrated the negative impact of the involvement of judicial authorities on the collection of safety-related data which is indispensable to improve aviation safety.¹¹¹ The fear of criminal proceedings has an adverse impact on the contribution by aviation professionals in the course of safety investigation and the further development of aviation safety. The malfunction of gathering all available safety information may have serious consequences, considering that one of the most effective tools to advance safety is the ability to learn from previous mistakes and to prevent its recurrence. Indeed, it creates a vicious circle: The increase of judicial proceedings lead to less reporting which decreases aviation safety and results in more incidences and accidents followed by judicial proceedings.

Some argue that the public interest of advancing aviation safety outweighs the need to punish errors, since

[p]roceedings to determine culpability for a specific aviation incident or accident impacts the few people concerned, such as the pilot and flight crew ...[whereas the prevention of] aviation incident or accident from occurring affects all of the persons carried on the relevant aircraft, if not the aviation public more generally.¹¹²

This view fails to properly evaluate the importance of ensuring the maintenance of the legal system and of monitoring compliance with the law by sanctioning the violations of law. This need is anchored in the constitution of many States and can only be superseded after a weighing up of the potential interests on a case-by-case basis. It is certainly not desirable that in case of clear criminal intent involved in a safety-critical occurrence, the judicial authorities are hampered by gathering sufficient evidence to convict the perpetrator.

At the European level, this conflict of interests is addressed by the new Regulation on the investigation and prevention of accidents and incidents in civil aviation. The Commission stresses that it is beyond its competences to avoid the fact that judicial and safety investigations take place simultaneously, but Article 12 of the Regulation expects the investigation authorities involved to agree in advance on the modalities of cooperation in the event that both authorities work in parallel. In addition, the same Article also states that if, during the safety investigation, the authority suspects an act of unlawful interference has taken place, the investigator in charge should immediately inform the judicial authority. This approach clarifies that it is not intended to exclude criminal proceedings in cases of unlawful interference. Both interests must generally be respected and reconciled as far as possible. The key to strike the right balance lies in mutual understanding and previous agreement upon collaboration in the aftermath of an accident.

¹¹¹ ICAO 'Implementation of a "Just Culture" Concept' presented by Portugal on 36th Session of the Assembly (Montréal, 18 to 28 September 2007) A36-WP/232 [3.3].

¹¹² S Sharif 'The Failure of Aviation Safety in New Zealand: An Examination of New Zealand's Implementation of Its International Obligations under Annex 13 of the Chicago Convention on International Civil Aviation'(2003) 68 *Journal of Air Law & Commerce* 339, 347.

Therefore, it is essential, first of all, to avoid generalisation of which interest has priority. This must be determined by taking into account the circumstances of each individual case. Secondly, an effective way to achieve the enhancement of aviation safety is to address the judiciary and to give them a better understanding of what consequences a judicial inquiry may have on the contribution of aviation professionals in the course of safety investigation and on the willingness to report safety-threatening incidents. To conclude, in order to adequately balance the improvement of aviation safety and the proper administration of justice, the mutual understanding on both sides must be enhanced by training the judicial staff in charge of aviation cases in technical facets of this industry and in turn by teaching technical investigators on legal aspects.

2 The issue of self-incrimination

In the course of investigations the constitutional issue of self-incrimination will arise. Facing the risk of punishment, aviation professionals would avoid engaging in free and frank communications by invoking the privilege against self-crimination, where the resulting statements could be used to incriminate them.¹¹³

The privilege against self-incrimination¹¹⁴ or the right to silence¹¹⁵ forbids the government from compelling any individual to give testimonial evidence which could result in incriminating him or her during subsequent criminal proceedings.

As far as investigations of aircraft accidents are concerned, some countries, like the US, allow exceptions from this privilege, which could lead to eroding this safeguard. In the US, for instance, courts have refused legal protection against self-incrimination to aviators in civil litigations unless there is a 'substantial and real' prospect of future criminal prosecution.¹¹⁶ In fact, this exception substantially undermines the privilege by not considering that the government officials who receive the sensitive information are, in turn, obliged to give notice to prosecutors in the event of criminal behaviour. Without any guarantee of protection against self-incrimination, aviation professionals will face further questioning by officials with healthy scepticism. As a consequence, the promotion of aviation safety could suffer from this mistrust and the resulting reluctance to fully contribute to the safety investigation.

3 Freedom of information versus confidentiality

Freedom of information (FOI) legislation exists in many States and guarantee the fundamental right to access information documented by State entities. In the aviation context, safety regulators, aircraft accident investigators as well as Air Navigation Service Providers¹¹⁷ as State organisations are subject to this legislation. Therefore, the risk arises that the collected sensitive safety data may be made available to public domain.

¹¹³ *ibid*, 345-346.

¹¹⁴ As laid down, for instance, in the US Fifth Amendment.

¹¹⁵ Provided, for example, in the UK Criminal Justice and Public Order Act 1994.

¹¹⁶ NTSB Bar Association 'Aviation Professionals and the Threat of Criminal Liability – How Do We Maximise Aviation Safety?' (2002) 67 *Journal of Air Law & Commerce* 875, 906.

¹¹⁷ Hereinafter: ANSPs.

This situation will be exemplified by a case in the Netherlands where a reporter of the daily newspaper ‘de Volkskrant’ asked for copies of statements recorded by the Netherlands Aviation Safety Board¹¹⁸ during the investigation of the EL AL Flight 1862 accident which occurred in Amsterdam on 4 October 1992. In his request, the reporter referred to Article 110 of the Constitution¹¹⁹ and a specific FOI legislation¹²⁰. Both legal sources provide for the right of access to information. However, the access to the demanded information was refused pursuant to the Aviation Accident Act (AAA) which provides that ‘the preliminary investigation of an accident conducted under the Boards responsibility is not public and consequently the records concerning the investigation are to be kept confidential’.¹²¹ This regulation must be seen in the light of Standard 5.12 of Annex 13 which emphasises the importance of the confidentiality of investigation files, which is indispensable to ensure the unimpeded flow of safety information.

FOI legislation can act as a deterrent to safety reporting and contribution of professionals during the investigation for two reasons.¹²² Firstly, reporters will want to prevent their statements from becoming public knowledge and secondly, they are afraid of misinterpretation and misuse of their statements not only by the judicial authorities but also by the media.¹²³ In particular, the phenomenon of the ‘sensationalising’ of aircraft accident is an aggravating circumstance increasing the need to keep reporter’s statements confidential.

The reporter appealed against the Board’s decision and the Administrative Chamber of the Court discussed the precedence of the AAA as *lex specialis* to protect safety investigation compared to the WOB as *lex generalis*.¹²⁴ He concluded that a specific regulation concerning the disclosure of information can have priority over the FOI in the situation that it can be considered as exhaustive.¹²⁵ This decision is in line with recent developments in many States, particularly in Northern Europe, to adopt legal provisions which exempt sensitive safety data from the remit of FOI legislation. For instance, the current legislation in Denmark excludes any written material or reports derived from the safety investigation or the reporting system from the application of the provisions of the local Freedom of Information Act.¹²⁶

It is questionable whether both interests are adequately balanced when the FOI legislation is strictly not applied to all information gathered during the investigation. The absolute

¹¹⁸ Hereinafter: the Board.

¹¹⁹ Grondwet voor het Koninkrijk der Nederlanden, 24 August 1815, published Stb 45.

¹²⁰ Wet Openbaarheid van Bestuur, Act of 31 October 1991, Stb 703 [hereinafter: WOB].

¹²¹ H Geut ‘Freedom of Information Versus Confidentiality in Accident Investigations in The Netherlands’ (2000) XXV Air & Space Law 27, 27.

¹²² EUROCONTROL *Legal and Cultural Issues in relation to ATM Safety Occurrence Reporting in Europe* (PRC Report) (EUROCONTROL Brussels 2006) 33.

¹²³ *ibid*, 34.

¹²⁴ The AAA was replaced by the Safety Investigation Board Act in 2004.

¹²⁵ H. Geut ‘Freedom of Information Versus Confidentiality in Accident Investigations in The Netherlands’ (2000) XXV Air & Space Law 27, 28.

¹²⁶ Civil Aviation Administration – Denmark BL 8-10 Regulations on Mandatory Reporting of Flight Safety occurrences (2001).

protection of these sensitive data would ignore the legitimate right of the public to get information on the level of aviation safety. ‘... [I]nformation obtained during an investigation should [not] be withheld as confidential for its own sake but when it is necessary to release information in the course of the investigation it should be used responsibly’.¹²⁷ The Danish legislator has considered this point and has satisfied the public interest to know the facts about the level of safety by publishing biannually statistics based on de-identified information derived from occurrence reports.¹²⁸

To conclude, even though the FOI legislation has a deterrent effect on the promotion of aviation safety, the fundamental right to access information under government control must not lose sight of. A fair balance, as presented by the Danish legislation, which allows both interests to be pursued to the extent that they do not interfere with each other, is in this respect desirable.

4 Admissibility of safety data in judicial proceedings

On completion of a survey in 2002, the EUROCONTROL Performance Review Commission came to the conclusion that ‘in the majority of [EUROCONTROL Member] States, the appropriate authority for the administration of justice has access to air traffic management (ATM) related accident and incident information collated during a technical investigation’.¹²⁹ The question arises whether it is admissible to use this information, in particular safety investigation reports, as evidence in subsequent judicial proceedings.

In France the judicial authority may intervene and use the final reports documented by the safety investigation board as evidence for prosecution and in civil proceedings.¹³⁰ The criminal investigation file even includes the BEA’s report as a matter of course.¹³¹ By comparison, in the US, as in many other States, the use of safety investigation reports in judicial proceedings is only permitted under certain circumstances. These limits are laid down in 49 USC § 1154 (b) and reflect the independent character of the NTSB with its aim ‘to keep the Board free of the entanglement of such suits’ and serve to ensure that the Board does not exert an undue influence on litigation’¹³². The admissibility of such reports is limited to factual reports, whereas Board accident reports that contain the determination of the Board,

¹²⁷ JR Knight ‘Accident Investigation Procedures as Viewed by a Technician’ (1984) IX Air Law 30, 32.

¹²⁸ PM Nørbjerg ‘Naviair - The creation of an Aviation Safety Reporting Culture in Danish Air Traffic Control’ <http://www.naviair.dk/media/creating_a_reporting_syste.pdf> (22 July 2010) 8.

¹²⁹ EUROCONTROL *Legal Constraints to Non-punitive ATM Safety Occurrence Reporting in Europe* (PRC Report) (EUROCONTROL Brussels 2002) 9.

¹³⁰ EUROCONTROL *Legal and Cultural Issues in relation to ATM Safety Occurrence Reporting in Europe* (PRC Report) (EUROCONTROL Brussels 2006) 63.

¹³¹ S Foreman ‘Aviation Accidents and the French Courts’ (2005) 20 Air & Space Lawyer 1, 16.

¹³² 49 CFR § 835.3 (a) (2008).

comprising the probable cause of the accident, are statutorily excluded from its use as evidence.¹³³

At international level, the ICAO is not fundamentally opposed to the admissibility of safety reports in judicial proceedings, but such usage should be considered as *ultima ratio*, that is, ‘such material should be vested with a subsidiary status’.¹³⁴ Indeed, evidence derived from the material gathered by the safety investigation board should not be presented in judicial proceedings unless the circumstances leading to the accident could not be proven otherwise.

From a European perspective, the new Regulation does not allow the usage of the final report in subsequent judicial proceedings unless the administration of justice decide that the benefits of the disclosure of this report in the judicial proceeding outweigh the adverse domestic and international impact that such action may have on future safety investigation.¹³⁵

At national level, it is to be noted that not all States allow the usage of safety investigation reports in litigation. However, those States which provide for the possibility to present safety reports as evidence, still have to consider the purpose of the safety report, namely to determine the technical causes of the accident in order to prevent future accidents through safety recommendations. The problem lies in the fact that these technical causes can establish factual causation, but they may not be automatically equated with legal causation, for instance, in the sense of proximate cause. The increased misuse of statements laid down in the safety report for judicial purposes acts as a deterrent for aviation professionals to fully contribute in the course of safety investigations. Therefore, it is important that such misuse is avoided through not only legal safeguards but also by training the investigators regarding report drafting to minimise the risk of misreading. This last point is essential as safety investigators are often technical experts lacking sufficient legal knowledge to identify the risk of promoting liability of aviation professionals by using a certain wording.

F CRIMINAL LIABILITY

The purpose of this part is to shed light on the issue of who, in practice, is held criminally liable in the aftermath of an aircraft accident, whether it is an individual or the company’s management and under what conditions they are subject to punishment, followed by the question of who ideally should be held accountable in order to do justice to the proper administration of justice while not jeopardising aviation safety.

¹³³ WD Janicki ‘Aircraft Accident Reports and Other Government Documents: Evidentiary Use in International Air Crash Litigation in the United States’ (2009) 74 Journal of Air Law & Commerce 801, 810.

¹³⁴ F Schubert ‘Legal Barriers to Safety Culture in Aviation’ (2004) XXIX Annals of Air & Space Law 19, 56.

¹³⁵ Art 14 (3) of Regulation 996/2010.

1 Prosecution of individuals

At the core of the criminal investigation phase, it is to be determined whether the actions or omissions resulting in a particular safety-critical occurrence meet characteristics of a criminal offence. Judicial inquiries are not only investigating into accidents but also incidents. In some countries, the mere breach of an operational regulation without any concrete endangerment of aviation safety may qualify as a criminal offence resulting in punishment.¹³⁶ For instance, in Switzerland any breach of the aviation code is considered as a criminal offence.¹³⁷ In the most extreme case, the use of inadequate wording could lead to a criminal investigation, but the inquiry will usually be proportionate to the severity of the behaviour.¹³⁸ However, to hold someone criminal liable who has committed a criminal offence, a so called *actus reus*, without determining a subjective component, considering knowledge and intention of the accused, contradicts the understanding that a person can only be held liable if he or she is or should have been aware of the fact that his or her behaviour violates the law.¹³⁹ Particular attention is devoted to judicial proceedings in the aftermath of an incident, which did sometimes not even lead to physical damages. Incidents should only be subject to judicial proceedings, when concrete danger can be proven. Otherwise, the legitimacy of the judicial authority to investigate and prosecute at the expense of aviation safety may not be justified. With regard to air accidents, two requirements must be fulfilled to hold an aviation professional criminally liable. As already noted, the behaviour under investigation must constitute a criminal offence and, secondly, the author must have acted in a culpable manner.

Most of the criminal proceedings after an aircraft accident face the problem of not having enough evidence to prove the required degree of culpability to convict aviation professionals. The number of convicted individuals in aviation accidents is still relatively low compared to the number of accusations at the beginning of criminal investigations. In many instances, it was not possible to prove gross negligence or even intent to justify a conviction.

The Garuda Indonesia Flight 200 illustrates that it is difficult to convict the pilot even when the causes of accident determined in the investigation report clearly indicate gross negligent behaviour on the part of the pilot.

On 7 March 2007, a Boeing 737-400 operated as Garuda Indonesia Flight 200 crashed in Indonesia. The aircraft landed at high speed, overran the runway and hit an embankment at the end of the runway before bursting into flames. While 21 passengers were killed and 12 seriously injured, the captain and the first officer survived. Among the causes, which were determined in the investigation report of the Indonesian National Transportation Safety

¹³⁶ NTSB Bar Association ‘Aviation Professionals and the Threat of Criminal Liability – How Do We Maximise Aviation Safety?’ (2002) 67 Journal of Air Law & Commerce 875, 884.

¹³⁷ F Schubert ‘Legal Barriers to Safety Culture in Aviation’ (2004) XXIX Annals of Air & Space Law 19, 37 n 71.

¹³⁸ *ibid.*

¹³⁹ H Otto *Grundkurs Strafrecht – Allgemeine Strafrechtslehre* (7th edn De Gruyter Verlag Berlin 2004) 75.

Committee (NTSC), were the crew's failure to reject an unstabilized approach in accordance with the company procedure, the captain's failure to follow the first officer's repeated calls to go around and he ignored 15 times the Ground Proximity Warning System alerts.¹⁴⁰ These causes clarify that the pilot's behaviour goes beyond a simple human error towards gross negligent behaviour. The captain was therefore arrested and sentenced to two years in prison.¹⁴¹ However, in September 2009 the High Court in Yogyakarta acquitted the captain in its appeal decision due to a lack of evidence.¹⁴² It states 'that the prosecution had failed to "legally and convincingly" demonstrate guilt and therefore "the defendant's rights, position and status should be restored" '.¹⁴³ In January 2010, the prosecutors have now appealed to Indonesia's Supreme Court in order to achieve the reinstatement of the pilot's conviction.¹⁴⁴ It remains to be seen whether they will be successful.

This example demonstrates that conviction of aviation professionals often fails due to the lack of proven negligence. The threat of aviation professionals lies therefore less in the criminal trials and the resulting conviction, and more so in the investigation itself by criminal authorities in the aftermath of an accident. Even though the criminal investigations in themselves are not proof for the implication of fault, the fact that aviation professionals face the risk of dismissal, a fine or imprisonment is sufficient to traumatise the persons involved and act as a deterrent against reporting and contribution to an investigation. The result of the criminal proceedings is often less relevant since the actual damage occurs with the investigation and the resulting threat. The aviation professionals involved in the criminal investigation procedure and those who only watch the investigation of colleagues will have doubts whether they are willing to contribute to find the causes of the accident.

There is no doubt that criminal investigation and prosecution is appropriate when there is clear evidence of intentional conduct, but in cases where there are no indications of intent the damage done to aviation safety cannot justify the marginal benefits for the proper administration of justice which results of the investigation.

2 Prosecution on corporate level

Frontline operators have traditionally been the sole target of criminal proceedings due to the fact that criminal liability was exclusively referring to individuals. However, the aircraft

¹⁴⁰ National Transportation Safety Committee 'Aircraft Accident Investigation Report of Boeing 737-497 PK-GZC at ACI Sucipto Airport, Yogyakarta in Indonesia on 7 March 2007 (KNKT/07.06/07.02.35)' 56 <<http://www.seattlepi.com/dayart/pdf/Garudareport.pdf>> (22 July 2010).

¹⁴¹ M Forbes 'Captain Charged over Garuda Crash' Sydney Morning Herald <<http://www.smh.com.au/articles/2008/02/05/1202090334630.html>> (22 July 2010).

¹⁴² P Prameshwari and A Adji 'Garuda Indonesia Crash Pilot Frees on Appeal "Lack of Proof"' Jakarta Globe <<http://www.thejakartaglobe.com/home/garuda-indonesia-crash-pilot-freed-on-appeal-for-lack-of-proof/347005>> (22 July 2010).

¹⁴³ *ibid.*

¹⁴⁴ 'Appeal Lodged after Fatal Garuda Pilot Acquitted' Word press <<http://www.news.com.au/world/appeal-lodged-after-fatal-garuda-pilot-acquitted/story-e6frfkyi-1225818141258#ixzz0szc9kdVN>> (22 July 2010).

accidents in recent years have demonstrated the development that judges are shifting away from the conviction of individuals towards establishing negligence on the part of companies, managers and corporate boards.¹⁴⁵ This development was expected in the light of increasing responsibility of companies worldwide. One example for the shift of responsibilities for failings to the corporate level is the UK Corporate Manslaughter and Corporate Homicide Act 2007 which came into effect in April 2008. The new statute provides for prosecution of the corporation as a whole rather than individuals in cases of death caused by failings within the corporation when the corporation is not able to prove that its safety system is at least up to accepted standards.¹⁴⁶ In addition, it reflects the recognition that decision-making in today's corporations are driven by multiple executives so that it is inappropriate to hold an individual responsible for the wrongdoing.

In practice, two different situations may lead to corporate liability. Firstly, a corporation can be held vicariously liable for criminal acts or omissions performed by its employees within the scope of its authority.¹⁴⁷ Secondly, a corporation as a legal independent entity can also be subject to criminally liability, where the misconduct is not performed by the employees but by the company's management. This is, for instance, the case when the corporate board fails to adequately supervise a safety-critical system, including the provision of adequate training for the operating staff and appropriate internal guidelines. In this context, the conviction of the four managers of Skyguide in the Überlingen Case can serve as an example.

(a) The mid-air collision near Überlingen

On 1 July 2002, a Boeing 757 freighter operated as DHL Airways Flight 611 International Ltd. and a Russian charter flight, a Tupolev TU154, operated by Bashkirian Airlines (BAL) as Flight 2937 collided in mid-air in the airspace over Überlingen, Germany. The airspace, where the accident occurred, was controlled by the private Swiss airspace control company Skyguide. In accordance with a common practice at that time, the air traffic controller was in charge of two working stations, since the second controller went on a break. Therefore, he did not realize until one minute before the collision that the two aircraft were approaching.

Onboard both aircraft were an automated Traffic Collision Avoidance System (TCAS). The flight crew of both aircraft were alerted simultaneously by the TCAS that they were flying on intersecting flight paths. Had the pilots of both aircraft acted in accordance with those automated instructions, the collision would probably not have occurred. However, only the pilot of DHL Flight 611 followed the TCAS instruction but without informing the ATCO. Unaware of the descent of the DHL aircraft, the controller instructed the BAL aircraft to 'expedite descent'. As a consequence, both aircraft were flying at the same altitude and

¹⁴⁵ WR Voss 'Targeting the Top' (2008) 3(5) *AeroSafetyWorld* 1.

¹⁴⁶ 'A guide to the Corporate Manslaughter and Corporate Homicide Act 2007' UK Ministry of Justice (October 2007).

¹⁴⁷ MR Raskin 'Criminal Enforcement in the Aviation Industry' (2000) XXV *Air & Space Law* 129, 133.

collided at a 90-degree angle. The collision caused the deaths of 71 individuals aboard both aircraft and the destruction of both aircraft.

In May 2004, the German Federal Bureau of Aircraft Accidents (BFU) identified in its final report the following immediate causes of the mid-air collision: Firstly, the sole Skyguide air traffic controller on duty at the time of the mid-air collision failed to timely detect separation infringement by the two aircraft.¹⁴⁸ Secondly, the controller issued erroneous instructions to the BAL aircraft to ‘descend’ that were complied with by the BAL flight crew despite the contrary instruction to ‘climb’ given by its TCAS. The investigation also determined ‘systemic’ causes that contributed to the accident such as the poor integration of TCAS into the air traffic control system.¹⁴⁹ In addition, the regulations concerning TCAS published by ICAO, national aviation authorities, manufacturers and operators were not standardised and included even contradictory instructions.¹⁵⁰ Other systematic causes which were crucial to hold Skyguide criminal liable, is the failure of the management and quality assurance of the ANS company to ensure that the workstations are properly staffed at all times of the day.¹⁵¹ The management tolerated for years the common practice that in time of low traffic at night only one controller operates two workstations, while the other controller can take a break.

A criminal investigation of Skyguide was initiated against the two ATCO on duty and seven other employees of Skyguide on suspicion of homicide by negligence in 71 cases. On 15 May 2007, the criminal proceedings against eight Skyguide staff started before the District Court Bülach. In the end, three Skyguide ATC managers and one technical project manager were found guilty by the court,¹⁵² whereas the two air traffic controllers involved were acquitted on grounds that ‘single controller operation was common practice at the time of the accident when light traffic prevailed and that the allegations of the controller involved not having access to sufficient information to carry out their task could not be proved.’¹⁵³ The managers were not held liable for the misconduct of the air traffic controllers, but for their failure to ensure that the workstations are properly staffed at all times of the day and for tolerating over several years the common practice that in time of low traffic at night only one controller operates two workstations. Hence, the criminal liability addresses Skyguide as an independent legal entity itself.

¹⁴⁸ German Federal Bureau of Aircraft Accident Investigations (BFU) ‘Investigation Report on the Accident (near) Überlingen/ Lake of Constance/ Germany on 1 July 2002 (AX001-1-2/02) of May 2004’ 110.

¹⁴⁹ *ibid.*

¹⁵⁰ *ibid.*

¹⁵¹ *ibid.*

¹⁵² The three ATC managers convicted were given one year prison sentence suspended for two years and the technical project manager was sentenced to pay a fine.

¹⁵³ SKYbrary ‘B 572/T 154, Skyguide, Überlingen Germany 2002 (Legal Process – Air Traffic Controller, ATC Supervisor, Air Traffic Engineers)’ <[http://www.skybrary.aero/index.php/B752/T154,_Skyguide,_Uberlingen_Germany,_2002_\(Legal_Process_-_Air_Traffic_Controller,_ATC_Supervisor,_Air_Traffic_Engineers\)](http://www.skybrary.aero/index.php/B752/T154,_Skyguide,_Uberlingen_Germany,_2002_(Legal_Process_-_Air_Traffic_Controller,_ATC_Supervisor,_Air_Traffic_Engineers))> (22 July 2010).

(b) The ‘systems’ view

The criminal trial following the mid-air collision near Überlingen demonstrates the current shift from the historic precedence of placing criminal blame on individuals closest to the accident towards the corporate level which emphasises the importance of organisational aspects in maintaining safety.¹⁵⁴

The reasons behind the need to hold the management liable lies in the recognition that Air Navigation Service (ANS) is a highly complex system, which means that failures have to be regarded in the context of a so called Highly Reliable Organization rather than in one individual who made the last failure in a chain of several.¹⁵⁵ Due to the high risk inherent in ANS the safety system has to function in such a way that it can handle single human errors or unexpected situations.¹⁵⁶

In the context of this case, it means that the managers were convicted as they failed to provide and supervise a safety-critical system in which the human error of the air traffic controller does not lead to the endangerment of aviation safety. It is clear from the facts that the origin of mid air collision lies in the failure to adequately inform the staff about the limited availability of the equipment and to ensure that all working stations are well staffed at all time of the day. The air traffic controller cannot be expected to compensate the deficiencies on an organisational level. Indeed, in the present case, it is appropriate to abstain from considering the negligence of the individuals and to hold the corporate level liable.

However, is it generally desirable to solely address the system without taking into account the role of the individual in the system?

3 Individuals in systems rather than individuals or systems

In recent years the frontline operators were charged with criminal offences in the aftermath of an accident in order to satisfy the public outcry that something needs to be done against unreliable operators. This approach follows the view that human errors are the cause of the accident which deflects attention from upstream organisational issues in the overall system such as lack of supervision or mistakes on the management level.¹⁵⁷ In contrast, the new approach, the systems view, recognises that the outcome of an accident relies on several contributions and that human errors are not always the cause but often only a symptom which reflects the weaknesses deeper inside the system.¹⁵⁸ For instance, a variety of human errors may be an indication of underlying management problems rather than an unrelated series of

¹⁵⁴ R Fridrich ‘Creating an Environment Where Information Flows Freely: the Flight Safety Foundation and Just Culture’ (2005) 15 Skymag 16, 17.

¹⁵⁵ Swiss Air Traffic Control Technical Association ‘Midair Collision Überlingen Lesson learned’ presentation on the IFATSEA Safety Commitment Day (Brussels 21 September 2007) slide 7.

¹⁵⁶ *ibid.*

¹⁵⁷ SWA Dekker ‘When Human Error Becomes a Crime’ (2003) 3 Human Factors and Aerospace Safety 83, 84.

¹⁵⁸ S Dekker *Just Culture – Balancing Safety and Accountability* (Ashgate Burlington 2007) 131.

mistakes made by individuals.¹⁵⁹ At the heart of this approach lies the organisational decision making that creates the context in which the safety-related incident is likely to occur.¹⁶⁰ However, the question arises of whether focusing solely on the system without considering the human error involved is in fact a more just approach?

Granted, safety flows in the system enhance the risk of human errors and are therefore a crucial link in the causal chain, but safety-critical work is ultimately characterised by relationships between individuals and includes always a discretionary space which cannot be addressed by system improvement but only by the operating individuals.¹⁶¹ Hence, the emphasis should not rely on blaming solely the individuals involved or the system. The key to finding an appropriate solution as to who is to be held accountable in the aftermath of an accident lies in the assessment of the relationships and roles of individuals in the system.¹⁶²

The system itself cannot take the responsibility away from the frontline operators and this is also not desirable on the part of the operator. What makes their work meaningful is their freedom to make decisions within the scope of their discretion.

The task of the overall system, the management, is twofold. Firstly, the system is responsible for defining the scope in which the individual has discretionary power.¹⁶³ The employees have to understand the boundaries of their responsibilities. In this respect, it is to be stressed that individuals should only be held accountable for actions and omissions of which they had the freedom of choice. The system and not the individual is to be held liable for occurrences where the individual has followed rules adopted by the system and where it was not authorised to react in a different manner.

Secondly, the system should encourage and ensure that their employees conscientiously carry out their duties inside the granted scope of discretion.¹⁶⁴ It is doubtful whether punishment of individuals is an effective means to increase aviation safety. This would require that prosecution functions as a deterrent against human errors. Instead, anxiety and stress triggered by the fear of prosecution and conviction decrease the concentration in the exercise of safety-critical tasks and increase the likelihood of subsequent incidents.¹⁶⁵ To improve their performance and to encourage individuals to exercise their discretion as conscientiously as possible, interaction between the management and the employees is crucial. This relationship has to be built on trust and reliability. As a consequence, instead of creating a climate of fear, individuals should actively participate in the process of creating a better system to work in.

¹⁵⁹ CW Johnson and others 'Recognition Primed Decision Making and the Organizational Response to Accidents: Überlingen and the Challenges of Safety Improvement in European Air Traffic Management' (2009) 47 *Safety Science* 853, 855.

¹⁶⁰ *ibid.*

¹⁶¹ S Dekker *Just Culture – Balancing Safety and Accountability* (Ashgate Burlington 2007) 131-132.

¹⁶² *ibid.*, 132.

¹⁶³ SWA Dekker 'Just Culture: Who Gets to Draw the Line?' (2009) 11 *Cognition, Technology and Work* 177, 183.

¹⁶⁴ *ibid.*

¹⁶⁵ S Dekker *Just Culture – Balancing Safety and Accountability* (Ashgate Burlington 2007) 133.

To conclude, the recent development to take a systems view ignores the fact that the system, namely the management, cannot substitute the people working in the system which has discretionary power by exercising certain tasks. The focus should therefore be on the interaction between the system and the individuals working in this system to prevent future occurrences.

G CREATION OF A JUST CULTURE

A Just Culture supports learning from previous safety-critical occurrences in order to improve the level of safety awareness and to avoid its recurrence, while at the same time it recognises the judicial system's legitimacy to investigate and prosecute criminal offences. The concept of Just Culture is of a complex nature due to the various stakeholders involved and the great amount of conflicting interests. Nevertheless, there have been several attempts to define the scope of this concept.

1 Definition of Just Culture

The following comparative study will identify similarities and weaknesses of the three definitions which are currently in place to describe a Just Culture.

(a) EUROCONTROL

The first definition was developed by EUROCONTROL and has considerably shaped the understanding in Europe of what is meant by the term Just Culture. EUROCONTROL defines Just Culture as

[a] culture 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.¹⁶⁶

This definition is welcomed in respect of the recognition that simple human errors due to their nature should not be punished. Furthermore, it draws a line between punishable, unacceptable behaviour and unpunishable, acceptable behaviour. According to this definition the border towards punishment has been crossed when 'unacceptable gross negligence, wilful violations and destructive acts' are involved.

Nevertheless, this definition addresses solely front line operators, whereas according to the current predominant 'systems' view the real cause of the accident lies often at the management level and not by individuals. Nowadays, individuals are operating in a highly complex system. As a consequence, it is recommended to extend the definition so that the concept of Just Culture can also be applied to the corporation as a whole.

¹⁶⁶ EUROCONTROL *Just Guidance Material for Interfacing with the Judicial System* (EUROCONTROL Brussels 2008) 11.

In the light of the ‘systems’ view, it is also critical that the definition refers to wilful violations committed by individuals without specifying exceptional cases. This could lead to the unwarranted situation that an individual is to be held liable, when it violates intentionally a regulation in order to compensate deficiencies which are inherent to the system. In contrast, a front line operator who knows about the system-induced failure and decides to ignore this defect will not be held liable, since it has not infringed any regulations. In fact, the front line operator who acts with the aim of enhancing aviation safety will be punished for its exemplary commitment, although the ultimate wrongdoing was the failure to adopt appropriate regulations to handle the safety-critical situation and not the decision of the individual not to comply with current regulations. As a consequence, the current definition should be amended in the way that wilful violation is accepted, when this is necessary to compensate system-induced deficiencies.

Furthermore, it is questionable whether the level of training and experience should be used in order to determine acceptable behaviour as this presupposes that the level of training in every Member States is at least adequate, which is an erroneous assumption.¹⁶⁷ One argument against this criterion is the difficulty to evaluate the level of experience and training of the aviation professionals involved and to judge *ex post* what behaviour would have been appropriate considering the risk of the hindsight bias.¹⁶⁸ Therefore, this criterion should be eliminated since it adds significant uncertainty.

Finally, by introducing the notion ‘gross negligence’ the well-known issue arises of what behaviour can be considered as gross negligence and what may still be considered as simple negligent. Even though the conditions are similar in most States, the application of this notion in a particular case will depend on the judge or the prosecutor. The definition of Just Culture is not aimed at providing a prescriptive definition, it is rather a tool to understand the objectives as well as the background of the concept Just Culture.¹⁶⁹

(b) James Reason

According to James Reason’s definition, Just Culture is

[a]n atmosphere of trust in which people are encouraged for providing essential safety-related information, but in which they are also clear about where the line must be drawn between acceptable and unacceptable behaviour.¹⁷⁰

The strength of this definition is that, compared to the definition of EUROCONTROL, not only front line operators are subject to this definition but also in accordance with the

¹⁶⁷ ICAO ‘Establishment of a Just Culture Definition’ presented by CANSO on the Accident Investigation and Prevention (AIG) Divisional Meeting (Montréal, 13 to 18 October 2008) AIG/08-WP/60 [2.2.6].

¹⁶⁸ S Dekker *Just Culture – Balancing Safety and Accountability* (Ashgate Burlington 2007) 66.

¹⁶⁹ R van Dam ‘Preserving Safety in Aviation: “Just Culture” and the Administration of Justice’ (2009) 22 *Air & Space Lawyer* 1, 6.

¹⁷⁰ J Reason *Managing the Risks of Organizational Accidents* (Ashgate Aldershot 1997) 205.

‘systems’ view the management. James Reason follows a forward-looking approach by emphasising the need to promote the collection and sharing of safety-critical information in order to enhance aviation safety.

At the heart of James Reason’s definition is the ‘atmosphere of trust’ which should be a crucial factor in encouraging reporting by aviation professionals, but the definition also refers to the awareness of all aviation professionals as to what behaviour is considered to be acceptable. However, although this definition seems to be a reasonable description of the concept of Just Culture at first sight, it gives no instructions as to how the atmosphere of trust should be built up or what behaviour is to be considered as acceptable.¹⁷¹ In order to protect the aviation community against unreasonable prosecution, certain criteria have to be established to provide the needed guidance for the judicial authority and the essential clarity within the aviation community. The creation of legal certainty is, in turn, indispensable to establish an atmosphere of trust. The definition provided by James Reason includes a few good ideas but fails to clearly describe how these ideas can be applied and according to what criteria the line must be drawn between acceptable and unacceptable behaviour.

(c) Joint Planning and Development Office (JPDO)

The JPDO defines Just Culture as follows

[a] Just Culture is one in which employees are held accountable for deliberate violations of the rules but are encouraged and rewarded for providing essential safety-related information. A Just Culture does not tolerate reckless behaviour or deliberate malfeasance.¹⁷²

Like the EUROCONTROL definition, this definition acknowledges that it is neither desirable to have a blame-free culture nor to blame employees for simple human errors. The JPDO attempts to draw a line between unacceptable and acceptable behaviour by determining reckless behaviour and deliberate malfeasance as punishable. Compared to James Reason, this definition is preferable since it describes in more detail what is meant by unacceptable behaviour. However, the punishment of reckless behaviour gives rise to concern, considering that a simple human error like the disregard of a less important regulation in the daily operation can be regarded as reckless behaviour resulting in punishment. Taking into account the severe consequences of punishment on the enhancement of aviation safety, it does not seem appropriate to take serious action against reckless conducts.

In addition, by addressing solely employees the JPDO has the same weaknesses as the definition of EUROCONTROL, namely that it does not pay attention to system failures and

¹⁷¹ ICAO ‘Establishment of a Just Culture Definition’ presented by CANSO on the Accident Investigation and Prevention (AIG) Divisional Meeting (Montréal, 13 to 18 October 2008) AIG/08-WP/60 [2.6].

¹⁷² Joint Planning and Development Office *Safety Culture Improvement and Resource Guide* (Joint Planning and Development Office Washington DC 2008) 9.

their effects on the work of individuals.¹⁷³ Like EUROCONTROL, this definition highlights that deliberate malfeasance is not tolerated. Consequently, the same unwarranted situation is created that a front line operator may be blamed for the infringement of regulations to compensate system-induced failures.

In conclusion, all definitions have one thought in common, a Just Culture should not be misunderstood as a blame-free culture, but as a culture which differentiates between acceptable and unacceptable behaviour. However, none of the three definition provides an adequate description of what is meant by a Just Culture as they are either too vague and fail to provide detailed instructions as to how to achieve the mentioned objectives or it does not take into account the systems view. Considering these shortcomings, this paper proposes the following definition: A Just Culture creates an atmosphere of trust where the corporation, front line operators or others are not punished for actions, omissions or decisions taken by them unless gross negligence, wilful violations or destructive acts are involved and not justified by system-induced failures.

2 Drawing a line between honest mistake and unacceptable behaviour

Pursuant to the understanding of EUROCONTROL, honest mistakes are those failures which are reasonable considering the actor's experience and training. However, the interpretation of what has to be considered as reasonable underlies the subjective view of the judge or the prosecutor. Therefore, the risk arises that by complying with its obligation to report honest mistakes, the aviation professional may incriminate himself or herself when the judicial authority evaluates his or her behaviour as grossly negligent or intentional. As a consequence, the aviation professional has two choices: Firstly, to report the safety-critical occurrence and hoping that the judicial authority judges his or her conduct as an honest mistake or to refrain from reporting hoping that his or her failure to report this event will never come to light.¹⁷⁴

With this in mind, at first glance drawing the line seems to be of utmost importance, as it protects not only aviation professionals from inappropriate interference of the judicial authority when their behaviour does not achieve the level of gross negligence but also to protect the public from aviation professionals which have committed criminal offences. Various attempts to draw this line have been developed.

In fact, all these models to determine culpability are just a starting point, which leave the difficulty into deciding whether an action falls on the side of acceptable or unacceptable behaviour to the author. Indeed, models are a useful tool to break down the complex issue into smaller, more manageable components. However, the problem lies in the fact that the

¹⁷³ ICAO 'Establishment of a Just Culture Definition' presented by CANSO on the Accident Investigation and Prevention (AIG) Divisional Meeting (Montréal, 13 to 18 October 2008) AIG/08-WP/60 [2.10].

¹⁷⁴ EUROCONTROL *Just Guidance Material for Interfacing with the Judicial System* (EUROCONTROL Brussels 2008) 12.

definition of what is meant by negligent or reckless behaviour is very vague and has to be decided on a case-by-case basis so that even if the line would be determined by means of labels like gross negligence, the scope of what behaviour is to be regarded as unacceptable is far from being clear. It is also of concern that an ex-post judgement is influenced by the bias of hindsight leading to an inappropriate expectation that the harmful consequences could have been foreseen in the particular case and what reaction would have been appropriate to respond adequately to the emerging danger. Due to the uncertainty regarding the interpretation of the various notions, the question arises whether the clear delineation is the appropriate approach to build a Just Culture.

Creating a Just Culture does not mean the adoption of definitions. Labels such as wilful violation or recklessness are far from being self-explanatory.¹⁷⁵ It is misguided to believe that ‘acceptable and unacceptable behaviour form stable categories with immutable features that are independent of context, language or interpretation’.¹⁷⁶ Whether an act or omission falls into a certain category depends on the view of the interpreter. As a consequence, by drawing the line the issue is not resolved but solely displaced. The decisive factor in deciding what has to be considered as unacceptable is less the description of the border but more the decision about who gets to draw the line.¹⁷⁷

A Just Culture should not attempt to decide universally who gets to draw the line whether it should be the prosecutor or a committee of peers. This decision should take into account the particularities of the national legal system and is therefore left to the national legislator. However, a Just Culture should take on two tasks: First and foremost, it has to encourage States to determine in advance who gets to draw the line to reduce anxiety and uncertainty within the aviation community about what will happen in the aftermath of a safety-critical event. This is essential since all actors in a safety-critical industry prefer to know what the adverse consequences might be for them instead of leaving them in a state of such uncertainty.¹⁷⁸

Secondly, a Just Culture has to address the role of domain expertise regarding the issue of who gets to draw the line.¹⁷⁹ Aviation is a highly complex area which demands experience to evaluate whether the behaviour of aviation professionals was acceptable.¹⁸⁰ The importance of the involvement of domain experts is therefore not to be underestimated. These experts need to be independent, credible and should preferably not have the nationality of those involved in the case, because national experts are often regarded as prejudiced and biased due

¹⁷⁵ SWA Dekker ‘Just Culture: Who Gets to Draw the Line?’ (2009) 11 *Cognition, Technology and Work* 177, 179.

¹⁷⁶ *ibid.*

¹⁷⁷ EUROCONTROL *Just Guidance Material for Interfacing with the Judicial System* (EUROCONTROL Brussels 2008) 13.

¹⁷⁸ S Dekker *Just Culture – Balancing Safety and Accountability* (Ashgate Burlington 2007) 120.

¹⁷⁹ EUROCONTROL *Just Guidance Material for Interfacing with the Judicial System* (EUROCONTROL Brussels 2008) 13.

¹⁸⁰ S Dekker *Just Culture – Balancing Safety and Accountability* (Ashgate Burlington 2007) 121.

to vocational solidarity.¹⁸¹ To achieve their contribution, a Just Culture has to foster States to think about how they can integrate them in the judgement procedure. The decision of the need to prosecute the operator will certainly remain with the judicial authority, but the value of this decision would increase significantly and be considered to be more justified if experts would have the opportunity to advise the judicial authority. Hence, empowering practitioners to contribute in the judgement where the line must be drawn in the aftermath of a safety-critical occurrence is the best approach to ensure a Just Culture.

3 The way forward: the integration of domain expertise

The Just Culture debate focused for a long time on the delineation between honest mistake and unacceptable behaviour. This notion may adequately be described as the boundary between a simple human error and behaviour giving rise to a punishable act. Legal certainty and trust should be built up as fundamental factors in the implementation of a Just Culture. Even though this approach is in principle welcomed, it provides the illusion of a clear predictability as to what acts or omissions will be tolerated while ignoring the high complexity of the aviation industry and the lack of domain expertise of the judicial authorities.

In order to adequately evaluate what behaviour is to be considered as grossly negligent goes beyond the scope of legal knowledge and requires not only an understanding of the regulations and procedures in force but also of the practical reality in daily operations of the aeronautical industry. Educating the judicial authority in order to get a better understanding of the operational and technical circumstances, is certainly a step in the right direction, particularly when it comes to the reading of accident reports, but for a reliable assessment and judgment of a particular case experts from both sides, legal and technical, are still needed. Therefore, the integration of domain expertise is necessary to obtain the right balance between the proper administration of justice and the enhancement of aviation safety. This makes one wonder according to which criteria these experts should be selected and how these experts could be integrated in the decision-making process of the need to prosecute the accused.

First and foremost, these experts should have a solid aeronautical background including several years of working experience and besides their technical expertise a basic understanding of law in order to facilitate the communication and cooperation between the judicial authority and the aeronautical experts. Furthermore, they should be credible and independent from governmental or certain industrial influence. Consequently, it is preferable to select for a given case an expert whose nationality does not match with the nationality of the parties involved. Otherwise, the independence and credibility of the expert could be challenged due to the assumption of vocational solidarity within the national aviation industry or of pursuing political interests. Meeting these conditions would lead to greater acceptance of

¹⁸¹ F Schubert 'Resolving the Just Culture Deadlock' (2009) VII(2) The Aviation & Maritime Journal 1, 6.

the integration of these experts and a higher value would thus be given to the resulting decision.

Where a prosecution seems to be necessary, the final decision will remain in the hands of the judicial authority. Hence, experts would not be empowered to challenge its decision. They are merely acting in an advisory capacity to fill the void stemming from the lack of technical and operational knowledge of prosecutors and judges investigating air accidents. Their task would be, inter alia, to support them to properly understand the findings of the investigation report or the statements of witnesses. For a successful integration of domain expertise, it is indispensable to build up confidence in the efficiency and reliability of that system. To achieve this, an independent, international organisation should be entrusted with the supervision and coordination of domain experts.

H CONCLUSIONS

The concept of Just Culture should serve as an effective means to combat the negative impact of criminalisation of air accidents on aviation safety by striking the right balance between the need to learn from safety-critical occurrences and the recognition of the legal system's legitimacy to investigate and prosecute criminal offences.

One of the most difficult obstacles to overcome in creating and effectively implementing a Just Culture is to find the adequate legal framework. An amendment of Annex 13 to the Chicago Convention would lead to the desired harmonisation on international level, but due to the State's freedom granted under Article 38 of the Chicago Convention to notify differences, its benefits would be limited in practice. A solution to this may be achieved by means of changing the current European regulatory framework. However, this is hindered by the fact that the administration of justice as part of the criminal law constitutes a sovereign function which has not been delegated to the European Union. Consequently, a Just Culture has to be established at national level.

In general, States are reluctant to change their national legislation, not least because the law often reflects the mindset of the public like in France. Therefore, remedial actions to establish a Just Culture must focus on steps within the existing legal framework. A Just Culture does not call for absolute protection of aviation safety at the expense of the proper administration of justice but for the balancing of conflicting interests, namely besides the proper administration of justice and the enhancement of aviation safety, the compliance with privacy laws, the protection against self-incrimination and the acceptance of FOI rights.

There is general agreement that aviation professionals should not be granted immunity against prosecution. Instead, criminal liability should be restricted to cases where the person involved has breached a legal obligation and acted in a grossly negligent manner or intentionally and

whereby the human failure was not triggered by system-induced failures. The last point pays attention to the predominant 'systems' view which presents a shift from placing blame on individuals towards the corporate level due to the fact that most human mistakes are symptoms of weaknesses deeper inside the system such as underlying management problems. To prevent the recurrence of safety-critical events, it is important to concentrate on the relationship between the system and the individual.

All current definitions of a Just Culture have in common that there are trying to draw a line between acceptable and unacceptable behaviour, whereby grossly negligent and wilful violations mostly qualify as criminally relevant behaviour. As these labels are not subject to uniform definitions, the application of them to a particular case lies in the hand of the judicial authority and leads to uncertainty among the parties involved. Thus, the decisive factor to establish a Just Culture is not the delineation between acceptable and unacceptable behaviour, which depends on the arbitrariness of the interpreter, but the decision as to who gets to draw the line. This decision should consider the peculiarities of the national legal system and exclude any uniform approach.

To adequately balance the conflicting interests, it is recommended to involve domain experts in the decision whether an aviation professional is to be held criminal liable. This is because aviation is a highly complex area which requires advanced technical knowledge to understand the circumstances of an accident and to judge the behaviour of the persons involved. It goes without saying that the final decision as to whether the accused should be prosecuted is left up to the judicial authority. Integrating domain expertise in the decision-making process of the judiciary would increase credibility and the justice of the subsequent prosecution or closing of the proceeding. In the case where a prosecution is initiated, a Just Culture should clarify that an individual should only be held liable for mistakes made within its scope of responsibilities. This, in turn, requires that the scope of duties and competences is clearly defined and that the individual is empowered to carry out its duties.

A Just Culture has a complex nature which takes into account a wide range of interests of stakeholders which differ from jurisdiction to jurisdiction due to the legal traditions and imperatives of each State. As a consequence, the findings of this paper with regard to what principles constitute a Just Culture is no patent remedy to answer the long-standing dilemma of how to balance the improvement of aviation safety and the proper administration of justice. Nevertheless, it provides guidelines to resolve the conflict which can be transposed into the national legal system as needed. Emphasising the notion of culture in this concept, a Just Culture needs time to develop and may not be implemented from one day to the next. Patience and assertiveness are therefore indispensable requirements to create a Just Culture.