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RASG-PA/03 – WP/12
25/10/10

Agenda Item 6: RASG-PA GSI3 Project: Protection of Safety Information Report

REPORT OF THE RASG-PA GSI/3.A PROJECT

(Presented by COCESNA/ACSA)

SUMMARY	
This working paper presents the result obtained since the first review of the document "**Proposal for amendment to the aeronautical legislation in order to protect safety information sources."**	
References: • (GSI-3) GSI/3 -*Effective Errors and Incident Reporting*, • ESC/05 RASG-PA ESC Report	
Strategic Objective	This working paper is related to Strategic Objective A-8.

1. Introduction

1.1 The review of the document "**Proposal for amendment to the aeronautical legislation in order to protect information sources"** was performed in Mexico City from 21 to 25 June 2010, as per the request of the fifth meeting of the RASG/PA Executive Steering Committee, held in Sao Paulo, Brazil, from 19 to 23 April 2010.

1.2 The review was conducted by a group of legal experts. The methodology used was based on determining whether differences between information and data had been considered in the initial document, in addition to the overall improvement of the document, so that it is in line with the conclusions of the ICAO High Level Safety Conference (HLSC) held in Montreal, Canada, from 29 March to 2 April 2010.

2. **Analysis**

2.1 From the analysis of the initial proposal, the following conclusions were reached:

a) In paragraphs 5.3 and 5.4 of the original document the concept of information and data is expressly conceptualized and differentiated, as well as in the preamble in the draft legislation for the States.

b) The guidance document contains references to information and data, and therefore it may be concluded that they have different treatment. Nevertheless, they are closely related in that **information,** is processed **data**. The main spirit of the proposal is to protect the information in the context of management systems; therefore, since the information is derived from data, it is not within the legal scope and is treated differently. Laws postulate generic and not specific principles.

c) Additionally, for greater coherence and understanding of the scale that is the subject of this proposal, the following improvements to the initial document were made:

i. a new article 1 is added, which is titled "**nature**", in the proposed law, and it is formulated in a generic way, stating the public interest legal status of the proposed amendment to the law;

ii. a new article 2 titled "**objective" is added, and formulates in a generic way, the protection of information obtained through collecting and processing data directly and indirectly related with safety as well as its sources, regardless of their nature.** With this stated objective, the scope of possible protection of information is covered;

iii. two principle objectives in a new article 3 are added which amend the rest of the initially proposed articles, they are:

- **PRINCIPLE OF PROTECTION covering all necessary protection in a generic context.**

- **PRINCIPLE OF CONFIDENTIALITY is adapted in the remaining proposed legislation and based on the fact that all protected activity should be reserved for the enhancement of safety.**

d) The term "*Regime of Exceptions*" be incorporated, in view that there are conditions under which the safeguard regime, protected by the principle of confidentiality, is excepted and it is important to define it.

e) Each article duly modified is assigned the name of the subject to be preserved.

2.2 The **Appendix** to this working paper presents the last version of the **"Proposal for amendment to the aeronautical legislation to protect the information sources",** including the aforementioned changes.

3. Conclusions

3.1 After review and updating of the initial proposal, the following conclusions were reached:

3.1.1 Given the complexity of the subject, the proposal is as general as possible within a range that may have many different variables, in view of the complexity that is indicated above, the law shall be generic, providing the possibility of attaining specificity through regulations, because it is would not be feasible to provide the specificity through the law.

3.1.2 There is information that, due to its nature, is public and available to whomever requires it. Therefore, it is not possible, nor necessary, to regulate those cases in a specific manner, in view that they escape from merely legal aspects.

3.1.3 The updating of the guidance document provide more coherence within the general context. The establishment of the three new articles of nature, object and principles allow a better understanding of what it intends to protect.

3.1.4 Given the nature of Managerial Law, where only what is allowed is possible, it is essential to incorporate the protection of information with its corresponding safeguard and exception regime, to allow the implementation of managerial systems to manage the risk.

3.1.5 Among the conclusions reached by the high level safety conference, the formation of a legal experts group was mentioned aimed at developing proposals on the promotion of safeguarding information. RASG-PA, with this project, has a specific proposal that can be improved with the input of other experts.

3.1.6 Likewise, the HLSC agreed to develop a code of conduct that although from a legal perspective cannot possibly establish any protection regime of a mandatory nature, it will provide valuable support to the efforts in promoting the free flow of safety hazard information, even if it is subject to the will of third parties.

4 Suggested actions

4.1 The Meeting is invited to:

a) note and comment on the information contained in this working paper;

b) analyze and approve the document **Proposal for amendment to the aeronautical legislation to protect the information sources,** presented in the Appendix to this document.

c) recommend that States use this guidance material in their efforts to create legal protection for sources of safety hazard information.

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RASG-PA/03 – WP/12
APPENDIX A

2010

Proposal for amendment to the aeronautical legislation in order to protect safety information sources

Regional Aviation Safety Group-Pan-American (RASG-PA)

Project GSI # 3.A

Revised 28/06/10

1. Introduction

1.1. The aeronautical industry faces an important challenge that involves a cultural change to further improve aviation safety levels. This cultural change is being made through the implementation of safety management systems (SMS) by the industry, and State safety programmes (SSP) by regulatory bodies.

1.2. Although the elements that make up the SMS and the SSP are easy to understand, their effective implementation may take several years, and involves the development of new regulations and procedures, personnel training, changes in the organisational culture, and a suitable legal framework.

1.3. Both the SMS and the SSP are based on an effective flow of information on hazards, as a vital element for continuous safety assessment and correction of deficiencies. It is fundamental to prevent inappropriate use of this safety information in order to ensure its continued availability. Use of safety information for other than safety-related purposes may inhibit the future availability of such information, with an adverse effect on safety.

1.4. The aforementioned is easily understood by aviation professionals and, accordingly, there has been an extensive debate about the need for States to take action for the introduction of legislative changes in support of what has been called a "just culture", to promote open reporting systems, and to protect the data collected with the only purpose of improving safety.

1.5. To this end, ICAO developed Attachment E to Annex 13, which contains legal guidance for the development of proposals of amendment to the existing legislation. However, to go from the legal principles contained in Attachment E to Annex 13 to a concrete proposal and the implementation of an amendment to civil aviation law can represent a significant challenge for many legal experts and also for the aeronautical authorities of the Region.

ICAO Global Plan and Roadmap

1.6. The ICAO Global Aviation Safety Plan contains twelve (12) global safety initiatives. The third global initiative, known as GSI 3, is aimed at an efficient reporting of errors and incidents in order to have a free flow of data for assessing the safety of the aviation system. The strategy of GSI 3 urges States to introduce regulatory changes in order to support the "just culture", promote a voluntary reporting system, and protect the data collected for the only purpose of improving safety.

1.7. Likewise, ICAO is assigned the task of reviewing States activities in order to identify any legislative gaps, foster voluntary reporting systems, and develop a plan to fill those gaps.

1.8. The Regional Aviation Safety Group – Pan-American (RASG-PA) implemented project GSI # 3.A with the purpose of developing a model proposal of amendment to national legislation, as a way of supporting States in the development of their own legislative changes. Likewise, ICAO Regional Offices are carrying out surveys among the States to identify gaps, and there are plans to conduct a regional seminar to provide more guidance on the topic.

1.9. This work has been possible thanks to the funding provided by Boeing and cooperation by the Central American Air Safety Agency (*Agencia Centroamericana de Seguridad Aérea* - ACSA), the Civil Aviation Authority of Jamaica, and the International Federation of Air Line Pilots' Associations (IFALPA), which provided legal experts for the development of this legislation model.

1.10. This document can serve as additional guidance for the States of the Region, in the development of their proposals of amendment and for obtaining approval by their legislative bodies.

1.11. At the Fifth Meeting of the RASG-PA Executive Steering Committee, held on 3 April 2010 in Sao Paulo, Brazil, a question was raised as to whether the information protection proposal ensured the protection of the source while promoting the exchange of such information, and it was stated that it was the data that gave origin to the information that had to be protected, and that the information had to be available for all those interested in improving safety.

1.12. In order to address this concern, a team of legal experts was established, which reviewed the proposal in June 2010. The outcome of this work was a revision of the difference between data and information, which is reflected in the preliminary text of the proposal of amendment, specifically in the definition of information.

1.13. Furthermore, the nature of the activity, which should be contained in every aeronautical law, was included in the text of the legislative proposal, which explicitly addresses the public interest nature, the assurance of protection to life, physical integrity and equity, both on a contractual and extra-contractual setting.

1.14. The objective of the proposed amendment, that is, to protect the sources and the use of the information, was also embodied. Finally, two principles were advanced: protection and confidentiality.

2. Background

2.1. The 35th ICAO Assembly adopted Resolution A 36-9 concerning the protection of information gathered from safety data collection and processing systems (**see Appendix B**). This resolution recognises that, as aviation continues to grow, traditional methods for maintaining an acceptable level of safety risk become less efficient and thus the need to develop other methods to understand and manage safety risks.

2.2. This concept, also known as "the imperative of change", represents a challenge for all aviation stakeholders, since it involves the need to implement new methodologies to achieve continuous improvement of accident rates and avoid generating a wrong perception of the risk involved in air transport by the public that uses air transportation.

2.3. ICAO international standards have been modified to include the new safety management concepts (SMS) for service providers, and the State safety programme (SSP), which are based on a reactive, pro-active, and predictive identification of safety hazards.

2.4. Hazard identification aimed at safety management and continuous improvement is based on information that many times is obtained through error and incident reporting that contemplates voluntary reports by aviation professionals, which may be self-incriminating or based on recordings to be used solely for improving safety.

2.5. Protection against inappropriate use of safety information is fundamental to ensure its continued availability and so that proper and timely preventive actions can be taken.

2.6. Resolution A 36-9 expresses the concern of the ICAO Assembly regarding the tendency to use safety information for the adoption of disciplinary and enforcement measures, and as evidence in criminal proceedings; and considers it necessary to strike a balance between the need for the protection of safety information and the need for the proper administration of justice.

2.7. It is also recognised that technological developments have given rise to new data collection, processing, and exchange systems that offer multiple information sources, which are essential to improve safety. And it is also recognised that one of the actions to be taken by contracting States within the framework of SSP implementation is the establishment of provisions for the protection of safety data collection and processing systems (SDCPS), in order to motivate people to provide essential information on safety-related hazards in order to have a continuous flow and exchange of safety management data between aeronautical authorities and service providers, and to enact a policy that will ensure that information derived from the SSP or SMS SDCPS will not be used as a basis for applying sanctions, except in cases of gross negligence or wilful misconduct.

2.8. The resolution notes that the existing international conventions as well as the national laws and regulations of many States might not be explicitly regulating the way in which the sources of safety information should be protected against misuse.

2.9. As part of the reforms required for safety improvement, the ICAO Council has approved a series of amendments to the Annexes to the Chicago Convention, which incorporate a legal framework for the:

- Implementation and maintenance of a State safety programme (SSP), defined as an integrated set of regulations and activities aimed at improving safety. The SSP framework has four components: Legislation, policies and procedures, risk management, safety assurance and promotional activities.

- Implementation and maintenance of a safety management system (SMS) for service providers, defined as a systematic safety management approach that covers the organisational structure, lines of responsibility, and the necessary policies and procedures.

2.10. The contents of the amendments refer to the subject matter regulated by each Annex. The SMS of service providers and operators and the SSP complement each other, but are different given the specific characteristics of the regulated and regulatory bodies.

2.11. The table below contains information about the amendments recently approved by ICAO to incorporate the international standards and the SMS and SSP regulatory framework.

Table # 1

Amendments to ICAO Annexes to Incorporate the SMS and SSP Regulatory Framework

Annex	Amendment	Date of adoption by the ICAO Council
Annex 11: Air Traffic Services	47	2 March 2009
Annex 6 Part 1: Operation of Aircraft	33	2 March 2009
Annex 8: Airworthiness	101	4 March 2009
Annex 6, Part 3: Operation of Aircraft: Helicopters	14	2 March 2009
Annex 14: Aerodromes, Vol. 1	10	4 March 2009
Annex 1: Personnel Licensing	169	2 March 2009

2.12. Based on these modifications, and in order to embody international standards in the safety programmes described above, the need arises to promote open reporting systems and to protect the gathered data with the sole purpose of improving aviation safety based on a "just culture" approach, where the traditional confrontational model of the government and the industry is modified by criteria based on structured programmes for the systematic collection, analysis, and dissemination of safety-related reports and information in an open reporting environment, to be used for prevention purposes.

2.13. The information derived from accurate data is the basis for improving any system. The data collection system must not represent a threat to the person providing the data. The protection of the sources and the use of safety information must be ensured in order to promote the flow of such information.

2.14. However, the current protection offered by the aeronautical system does not fully ensure an environment of trust in the industry-regulator relationship, an essential ingredient for the implementation of an effective SSP, or in the employee-employer relationship, also an essential ingredient for the effective implementation of SMS in a service provider.

2.15. Therefore, in addition to the reforms required for SMS and SSP implementation, States must adopt safeguards or exceptions within the framework of their local aeronautical legislation with respect to source protection and the use of safety information.

2.16. **Such safeguards or exceptions must be based on protection and Principle of Confidentialitys, which must be enunciated in the legislative proposal.**

3. Sources of Safety Information that Require Protection

3.1. While researching in order to develop a proposal of amendment to the legislation, one of the main doubts had to do with the type of information that needs to be protected. The fact that the legal guidance for the protection of information gathered from safety data collection and processing systems is contained in Annex 13 can be a source of confusion in the sense that it is only necessary to develop legislation to protect the sources of information used in the investigation of an accident or incident that requires investigation according to Annex 13. The difference between the traditional approach of improving safety based on the investigation of accidents and incidents (reactive) and the new approach based on the proactive and predictive collection of information will be later analysed.

3.2. The conclusion was reached that protection was required for all sources of information used in the safety management system (SMS) and the State safety programme (SSP), whose effectiveness in achieving performance improvements was based on obtaining the following types of information:

- Reactive
- Proactive
- Predictive

Reactive Information

3.3. Reactive information refers to events that have already occurred, such as incidents and accidents, which could have been the cause of damage and which generally fall under Annex 13.

Proactive Information

3.4. Proactive information refers to information that is obtained from analysing the activities of organisations, such as audits, surveys and inspections; it also includes information provided in the way of voluntary reports by operational personnel.

Predictive Information

3.5. Predictive information documents real-time system performance in daily operations in order to identify potential future problems. An example of this type of information could be that collected through flight data collection and analysis programmes known as FDA or FOQA.

3.6. The next section will analyse the role of information in the determination of the responsibility to generate legal obligations.

4. The Responsibility of the Operator from the Aeronautical Perspective

4.1. At its best, the Rule of Law is governed by legal systems of Roman German tradition, known as Continental Law, applied in countries of European continental tradition, or the Anglo-Saxon Law, known as Common Law, applied in countries with British influence. The difference between the two systems lies in the hierarchy of the norms. In this respect, the primary source of Continental Law is the statutes, while the source of Anglo-Saxon Law is custom and judicial precedent.

4.2. Regardless of the type of legal system determined by historical or geographical tradition, it is the obligation of the Rule of Law to regulate individual behaviour in order to establish a fair regulation of human coexistence.

4.3. Aeronautical Law must regulate the legal relationships that have their origin in air navigation. Laws can be national in nature--those adopted unilaterally by each State--or international, emerging from bilateral or multilateral agreements among States.

4.4. Likewise, an aviation incident or accident could impair values that are legally protected, disturbing the social order protected by the Rule of Law. These can be:

- **Community values,** where life, the maximum value, is impaired, causing death, disability, or injury. In these cases, the State provides protection in defence of community interests, trying to determine guilt or wilful misconduct,

- **Personality values,** where material damage occurs and indemnity for the damage caused is pursued.

- **Both types of values,** with the corresponding criminal action and indemnity for damages caused.

4.5. Legal responsibility is the attribution of a conduct in a concrete activity, whether incurred with the intention of causing damage, or due to wilful misconduct, or negligence or lack of due care. The immediate consequence is a sanction or indemnity, depending on whether responsibility is legal, civil, or administrative.

4.6. The responsibility concept is not static; rather, it has evolved throughout history. In the legal sphere, it is subject to the changes required to respond to societal needs.

4.7. In order to determine responsibility, a causal link must be determined based on the information obtained from investigations. It is through information on the facts that the truth can come to light in order to establish a responsibility that generates a legal obligation.

4.8. The concept of responsibility in aviation was born to legal life with the theory of acquired risk or created risk. The aeronautical industry is unique in its intrinsic nature, thus the need for regulation in a context that responds to its needs within the regulatory framework of Aeronautical Law, as a branch of International Law, both public and private, or in direct application of the internal legislation of the States.

4.9. From its onset, aviation has been a highly regulated industry, particularly regarding responsibility, since ***it has been, is and will continue to be subject to a "limited liability" given the risk inherent to the activity itself***.

4.10. Air transport services can generate an accident or incident without wilful or criminal intent, as a result of different technical circumstances that involve aircraft management in the airspace, like speed in flight, the flammable nature of the liquids contained in some of its operating systems, atmospheric conditions, among other factors known to contribute to the damage that the victims of an incident or accident can suffer.

4.11. Liability can result from risk, without existing any guilt or illegal activity. Such is the case of an act of God and *force majeure*. Events that escape control, such as acts of nature or human-made, which limit liability, must be seen as possible assumptions when investigating an accident or incident.

4.12. It is unlikely that an air accident will incur in wilful misconduct, as a criminal conduct with the clear and express intention of causing damage, except in cases of international terrorism, like the unfortunate events of 11 September 2001.

4.13. It is obvious that the purpose of the pilot in command when flying the aircraft is to take it to destination safely. International statistics derived from the investigation of accidents has not registered any event in which the cause of the accident has been the wilful intent of causing damage, since the pilot would also be at risk.

4.14. Developments in technology and human factors have made it possible to reach very high levels of safety, thanks to research in the field of prevention.

Traditional Use of Information in the Context of the Investigation of Accidents and Incidents (Reactive Information)

4.15. An aeronautical incident or accident is an extremely complex event involving a series of related causes that do not permit short-term determination of the causal sequence leading to the accident.

4.16. The investigation of an aviation incident or accident seeks to identify the probable causes of an event related to an air operation, which generates specific damages to an individual or the community, in order to prevent it from occurring again. In this sense, according to Annex 13 Standard 3.1,*"The sole objective of the investigation of accidents and incidents will be to prevent future accidents and incidents, rather than to determine guilt or responsibility"*. Its purpose is prevention rather than punishment.

4.17. It must also be noted that, according to standard 5.4 of Annex 13, the authority responsible for investigating incidents or accidents will enjoy independence and full authority to conduct the investigation and, in turn, any legal or administrative procedure to determine guilt or liability should be independent from any investigation under Annex 13. Nevertheless, standard 5.10 of Annex 13 recognises the need for coordination between the investigator in charge and the legal authorities, and even considers the possibility for a representative of the latter to guard the flight recorders.

4.18. Standard 5.12 of Annex 13 considers the possibility that certain information that is essential for the investigation of an incident or accident, although it cannot be disclosed for purposes other than those of the investigation, be provided to the authorities responsible for the administration of justice, if they consider that the disclosure of said information is more important than the negative consequences that its disclosure could have for the investigation at hand or for future investigations.

4.19. Attachment E to Annex 13, in items 2.2, 2.3, and 2.4, states it is not the purpose of protecting safety information gathered from safety data collection and processing systems to interfere with the proper administration of justice, which must be balanced with the need for the protection of said information in order to improve aviation safety, and that it must be protected from inappropriate use.

4.20. Paragraph 3.5 of Attachment E offers guidance in the sense that it is possible to use safety information in disciplinary, administrative, and criminal proceedings provided it is done under suitable safeguards provided by national law.

4.21. Likewise, paragraph 4 of Attachment E to Annex 13 offers guidance to the States in the sense that safety information may be deprived of protection if it is shown that the event in question is the result of conduct with intent to cause damage or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct.

4.22. Likewise, it must be noted that knowledge of the probable occurrence of an incident or accident, taking into account the damage that such event could cause, with the immediate consequence of an obligation to compensate the victims, has given rise to international legal instruments, such as the Warsaw system, updated through the 1999 Montreal Convention, and national legislation, which contemplate contractual and extra-contractual indemnity assumptions.

4.23. It must also be noted that, in terms of air transport, a high level of specialisation is required in order to objectively understand the probable causes of an aviation incident or accident. Consequently, those in charge of the investigation must be experts in the various aeronautical areas, including accident investigation. If people with no aviation knowledge or experience participate in accident investigation, there is a risk of losing objectiveness, thus violating the applicable legislation.

4.24. An air incident or accident has very complex implications whose understanding requires a high level of aeronautical expertise, without which it will not be possible to carry out an objective investigation of the facts in order to determine the causal link between the fault committed by one person and the damage suffered by another.

4.25. If individuals without any aviation knowledge and experience are involved in the investigation of accidents, objectiveness may be compromised, thus contravening the applicable legal provisions.

5. The Imperative of Change and Safety Information Management

5.1. National legal instruments on aviation matters must meet, to some extent, the requirements established in international conventions, such as the Convention on International Civil Aviation, in terms of public aeronautical law, and the Warsaw System or the current Montreal Convention, in terms of private aeronautical law.

5.2. The constant growth of air operations generates the imperative of need to change the traditional way of improving safety. This change reflects the vision of assigning more importance to the identification and analysis, from a reactive, proactive and predictive angle, of everyday errors by all operational and technical sources available, as compared to the traditional approach of improving safety based on the investigation of the causes of accidents to prevent their recurrence. According to the new approach, information from all sectors involved in the aeronautical activity is the primary source for correlating the facts that will determine the causes of an accident.

5.3. Information is a phenomenon that gives meaning or sense to things. It is a set of processed data that constitute a message about a given entity or phenomenon. Data are perceived, integrated, and used for generating the information required to create knowledge, which enables decision-making for the conduction of day-to-day activities to ensure existence. Wisdom means being able to correctly determine when, how, where, and with what purpose should the acquired knowledge be used.

5.4. The value assigned to information represents a new way of achieving safety improvements, not based on experiencing an event, but correlating situations through the information obtained from different sources, and sharing it among various sectors of the aeronautical industry.

5.5. This need for change, as a new challenge facing international civil aviation, has generated the need to produce management systems in the form of documented processes for managing operational risk, and technical systems for managing financial and human resources with the sole purpose of minimising risk, applying the basic principle of *"continuous improvement"* inherent to any management system.

5.6. The amendments to ICAO Annexes, mentioned in Chapter 2 of this report, respond to the need to change this approach as a way of ensuring continuous improvement of safety of air operations.

5.7. Both the SMS and the SSP create the need to promote open reporting systems and to protect the gathered data that lead to information, with the sole purpose of improving aviation safety based on a "just culture" approach, where the traditional confrontational model of the government and the industry must be replaced with criteria based on structured programmes for the collection, analysis, and systemic dissemination of safety information, in an open reporting environment, to be used for prevention purposes.

5.8. The data collection system must not represent a threat for the one providing the data. Therefore, the protection of safety information sources must be ensured in order to promote the flow of such information.

5.9. Likewise, learning the safety lessons from associated accidents and incidents requires a legal base that will allow for independent and impartial investigations and prevents information obtained from safety data from being used in legal proceedings.

5.10. The spirit of management systems is based on the flow of information necessary for subsequent analysis, using risk management techniques and the adoption of mitigation measures. Therefore, it is clear that safety information must be protected in order to have an efficient system.

5.11. This means that safeguards and exceptions need to be embodied in the aeronautical legislation of States, where the value of the source and the use of information are protected under the Principle of Confidentiality and may be used for safety purposes. By protecting the flow of information among the various aeronautical stakeholders, it will be possible to effectively implement and maintain a state safety programme (SSP) and a safety management system (SMS).

5.12. These safeguards or exceptions applicable to sources and to the use of information are only possible within certain parameters that must be explicitly typified in aeronautical legislation, since they are a source of information for defining possible responsibilities and thus must be regulated through legislative reforms that describe the nature, purpose and principles that support said safeguards or exceptions.

5.13. These reforms imply a new paradigm that involves changes to the concept of responsibility in an evolutionary process, aimed at preserving aviation safety as a legal value protected in a Rule of Law.

5.14. **Appendix A** contains a model proposal of amendment to a national aeronautical law that may serve as guidance material for States for the development and implementation of their own proposals of amendment to their national legislation.

6. Fundamentals of the Proposal of Amendment

6.1. The spirit behind the proposal of modification to the law is based on the need for States to incorporate in their primary aeronautical legislation a chapter to regulate the protection of sources and use of the information obtained through data collection in safety management systems, such as the SSP and the SMS.

6.2. The bill supported by Transport Canada, which is being considered by Congress for approval, was analysed and taken into account for purposes of regulating information protection (see http://www2.parl.gc.ca/HousePublications/Publication.aspx?DocId=3087786&).

6.3. Articles 1 to 3 of the proposal presented herein define the nature, purpose and principles that must regulate the use of information for safety improvement purposes.

6.4. Articles 4 to 6 explicitly regulate the definition of management systems, explicitly list the systems that the State must have in place, including the classical regulatory compliance systems known as the Safety Oversight System, based on the eight critical elements and the new figures of the SSP, as well as the SMS, and sets forth the competence of the Director of Civil Aviation to manage the functions of the SSP, as listed from A through D.

6.5. Article 7 establishes the exceptions to the Principle of Confidentiality as a principle contained in the proposal, and specifies cases in which the aeronautical authority will make use of the sources and the information for other than solely preventive purposes, and also the way in which they will use it. It is important to highlight that the information will be made available to jurisdictional bodies in a formal act, by mandate of a judicial body.

6.6. Articles 8 to 10 regulate the protection of the sources and use of the information derived from the SMS, and the exceptions to the rule, which are the same as those contemplated in the State Safety Programme, that is, the exceptions to information protection are based on the same assumptions.

6.7. Articles 11 to 12 incorporate clauses for the protection of sources and use of information derived from flight data recordings, and list the exceptions to be included in the data collection process.

6.8. Articles 13 to 15 regulate the powers of the State to enter into agreements with the air operator regarding the sources and the use of information derived from flight data recordings, also establishing the corresponding exception and the general protection of said information.

6.9. Articles 16 to 18 establish the competence of the State to regulate a voluntary reporting mechanism as part of the SSP, providing protection to said information, as well as the corresponding exceptions.

6.10. Article 19 empowers the State to use the information as it may deem appropriate.

6.11. Article 20 regulates the dissemination of information among States under the Principle of Confidentiality and establishes generic safeguards to the use of information within the context of the SSP and the SMS.

6.12. Articles 21 and 22 establish the protection regime for both the employee and a third informer.

6.13. Article 23 establishes the possibility of regulating the voluntary reporting mechanisms through regulatory means.

7. Implementation Strategy

7.1. It is clear that the changes required for both SMS and SSP to be effective are very complex. Accordingly, the States must establish a strategy for the approval of legislative changes. Any change implies a period of transition that requires a preparatory phase for digesting, understanding, and implementing the required changes.

7.2. The nature of the topic poses the challenge for legal experts on aeronautical matters of finding a way of incorporating safeguards or exception regimes to protect information in their local legislation. However, it is expected that this document will be used as guidance material to address this challenge.

7.3. In face of this reality, it is recommended that each State create a small national team made up by legal experts, representatives of the industry and/or related organisations, and headed by the aeronautical authority, to develop the proposal of amendment to their national legislation. The experts must identify, in accordance with their legal system, the corresponding legal instrument that will permit the incorporation of the safeguards required to protect the information.

7.4. Given the implications of this topic, it is important for the national team to prepare the ground for the law-making bodies, and be in a position of explaining the importance of approving the proposed safeguards at legislative level.

7.5. This national team should monitor the complete process until reaching the final objective of approving the safeguards or exception regimes, and report periodically to the RASPG-PA on the obstacles found in the approval and implementation process, with a view to analysing them jointly and determine the assistance programmes required.

7.6. It is highly advisable to stress the need for a seminar to train the legal advisors of the DGCA on the importance of the proposed changes, and on the need for changing the concept of responsibility.

7.7. Likewise, and depending on the level of difficulty experienced by the States in making legislative changes, it could be advisable to consider the advantages of making these legislative changes through an international legal instrument.

8. Status of Implementation in the Region

8.1. As part of the work on GSI # 3, a questionnaire was developed to determine the status of implementation of laws, regulations, and programmes in the States. In Objective 3b of the roadmap on "best practices", ICAO is required to review the activities of the States regarding the identification of the gaps in their respective legislative system, in order to promote open reporting systems and develop a plan to eliminate such gaps.

8.2. Pursuant to these objectives and recommendations, the first workshop on the Global Safety Roadmap held in May 2008 in Bogota, was the catalyst for the development of a questionnaire in which the NAM/CAR/SAM States were asked to inform ICAO of any legislation, regulation, and programme for the promotion of an effective flow of safety information. The States that completed this first legislative questionnaire are listed in **Appendix B** to this report.

8.3. While carrying out this task, it was noted that there was a need for a second questionnaire, which was sent to the States through a circular letter in August 2009. At the time of this report,

responses were still being received from the States.

8.4. Of 43 Contracting States and Territories in the NAM/CAR/SAM Regions, 13 responded to the first questionnaire. From the responses received, it may be concluded that there is a low level of implementation of legislative actions to promote "open reporting". Most responses point to the existence of some type of legislative action to promote SMS implementation, or error and incident reporting, but not directly related to the protection and promotion of voluntary reporting of safety information.

8.5. RASG-PA/02 Meeting held from 3 to 6 November 2010, in Bogota, Colombia, agreed on an implementation plan that will be regularly updated by ICAO Regional Offices through State letters and reviewed at RASG-PA annual meetings. This plan includes the establishment of a national team, led by each Civil Aviation Authority and supported by the industry, charged with developing and promoting the approval of its own proposal.

APPENDIX A

MODEL PROPOSAL OF AMENDMENT TO A NATIONAL AERONAUTICAL LAW

Rationale

In view of the obligations acquired by (name of State) by virtue of the Convention on International Civil Aviation, the Chicago Convention, approved by law number….., dated ……

Article 37 of the Chicago Convention establishes the commitment of the States to incorporate into their national legislation the standards and recommended practices of the International Civil Aviation Organization translated into Annexes.

Since the safety of aeronautical operations is the highest concern of the International Civil Aviation Organization (ICAO), the 35th Assembly of ICAO adopted Resolution A 36-9 on the protection of the information gathered through safety data collection and processing systems.

With the purpose of improving safety on a continuous basis through the identification of hazards, the management of associated risks, safety assurance and promotion, the ICAO Council adopted amendments to the following Annexes:

- Annex 11: Air Traffic Services, Amendment 47, adopted on 2 March 2009.
- Annex 6 Part 1: Operation of Aircraft, Amendment 33, adopted on 2 March 2009.
- Annex 8: Airworthiness, Amendment 101, adopted 4 March 2009.
- Annex 6 Part 3: Operation of Aircraft: Helicopters, Amendment 14, adopted on 2 March 2009.
- Annex 14: Aerodromes, Vol. 1 Amendment 10, adopted on 4 March 2009.
- Annex 1: Personnel Licensing.

Through these amendments, the member States of the Chicago Convention are required to establish the following systems:

- Implementation and maintenance of a State safety programme (SSP), consisting of four components and eleven elements.
- Implementation and maintenance of a safety management system (SMS) consisting of four components and twelve elements.

These reforms become international obligations and are based on the need to improve safety, where the flow of information as a source for the identification of potential hazards is vital for the prevention of accidents, applying a reactive, proactive, and predictive approach, and not only a reactive approach as currently established in Annex 13 to the Convention.

The aeronautical activity involves different actors that allow the aircraft to be in condition to fly in the airspace.

The management systems for service providers that are incorporated as an international requirement in the Annexes to the Convention create the need for the industry, as a whole--regulatory bodies, air traffic controllers, manufacturers, operators, air service providers, and administrative personnel related to the activity--to interact, fostering the flow of information on situations that might be a potential safety hazard**.**

The identification of hazards before they cause any damage is a useful tool for the prevention of accidents, applying a proactive and preventive approach.

Technological developments have given rise to new systems for the collection, processing, and exchange of safety data, which are important tools in the search for continuous improvement.

The sources and the use of information in the aeronautical context must be protected as a fundamental condition for continuous improvement and the investigation of the nature of events that may trigger an air accident. The information obtained from accurate data is the basis for improving any system.

The data collection system must not represent a threat for the one who is providing the data. The protection of safety information sources must be ensured in order to promote the flow of such information.

Learning safety lessons from associated accidents and incidents requires a legal basis for conducting independent and impartial investigations and preventing safety data from being used in legal proceedings.

The spirit of management systems is based on the flow of information required for subsequent analysis using risk management techniques, and for the implementation of mitigation measures.

Therefore, it is clear that safety information must be protected through legislative reforms for the sake of system efficiency.

This entails the need for safeguards or exception regimes in the aeronautical legislation of States, where the value of information is protected for safety purposes.

Only by protecting the flow of information within the various actors of the aeronautical activity can a State safety programme and a safety management system be implemented and maintained.

These safeguards or exception regimes for information are only possible within certain parameters that must be regulated explicitly in aeronautical legislation, since it is a resource for the establishment of possible responsibilities and thus must be typified through legislative reforms that regulate the nature, purpose and principles for the protection of sources and use of information.

These reforms imply a new paradigm that involves changes to the concept of responsibility in an evolutionary process towards the protection of aeronautical safety as a juridical value protected by the Rule of Law.

Based on the above, the following proposal is formulated.

Proposed Law

CHAPTER XX

PROTECTION OF THE SOURCES OF INFORMATION AND USE OF INFORMATION OBTAINED THROUGH THE COLLECTION AND PROCESSING OF SAFETY DATA

Article 1: NATURE

This law is of public interest and considers that the air transport service is essential and fundamental, and the State must ensure that life, physical integrity and equity are protected, both in a contractual and extra-contractual setting.

Article 2: OBJECTIVE

The objective of this title is to protect the information obtained through the collection and processing of data directly or indirectly related with safety, as well as its sources, whatever their nature.

Article 3: PRINCIPLES

For the application of this title, the following principles will be taken into account:

a) Protection Principle: considers essential life protection, physical integrity, the safety of individuals and corporations, within the context of aeronautical activity, in which it is also important to protect data collection and data processing under this title, as well as the information obtained from them and its flow, which are aimed at ensuring the highest safety margins in air operations and related activities.

b) Principle of Confidentiality: all data collection, data processing, the resulting information, its flow and the administrative activity, as listed in paragraph a), should be reserved solely for safety improvement.

Article 4: ON MANAGAMENT SYSTEMS

Management systems constitute a documented risk management process that integrates technical operations and systems with the management of financial and human resources in order to minimise risks and make continuous aviation safety improvements to protect the public interest.

Article 5: STATE OBLIGATIONS

With regard to the management systems defined in the previous article, the responsible authority of the State has the obligation to:

a) Manage and maintain an effective safety oversight system.
b) Create, manage, and maintain an effective State safety programme (SSP) to ensure an acceptable level of safety.
c) Require that every operator or aeronautical service provider implement an effective safety management system (SMS) accepted by the State.

Article 6: STATE RESPONSIBILITIES

The Director of Civil Aviation or his/her counterpart is the administration official responsible for coordinating the activities of the various organisations that participate in the State safety programme and the functions assigned herein:

a) To establish and promote facilities and services for the collection, publication, and dissemination of safety information, and reach agreements with individuals or government entities for the collection, publication and dissemination of such information.
b) To conduct inspections, audits, and assessments of the aeronautical activities of operators and aeronautical service providers that require a safety management system.
c) To require operators or aeronautical service providers that need a safety system, to improve, amend, or take corrective measures in their system when deficiencies or gaps that represent a risk that might compromise the safety of aeronautical activities are identified.
d) To include in the national budget the financial resources necessary for the implementation of the State safety programme.

Article 7: EXCEPTION TO THE PRINCIPLE OF CONFIDENTIALITY

The aeronautical authority ensures the operator or aeronautical service provider that has a safety management system that promotes open reporting of any event or circumstance that represents a risk to the safety of aeronautical activities, that it is governed by the Principle of Confidentiality . The aeronautical authority may only use such information for preventive purposes, except:

a) By express requirement of a court of justice that has jurisdiction and that has determined, through other sources, that the aeronautical authority has information that might be necessary for a criminal investigation.
b) Information that is disclosed or made available will state facts, avoiding names of individuals.
c) If the aeronautical authority has reasons to believe that the disclosed information is necessary for the cancellation, suspension, or rejection of a certificate or licence issued by the responsible authority.

Article 8: SAFEGUARD MEASURES

The operator or aeronautical service provider that must maintain a safety management system cannot use the information disclosed for safety purposes by its employees as a basis for taking disciplinary action against them, except for the conditions defined as unacceptable within its own safety management system.

Article 9: SAFEGUARD MEASURES FOR THIRD PARTIES

The operator or aeronautical service provider required to maintain a safety management system must not take action that will affect the working conditions of its employees in retaliation for information disclosed by the latter about supposed actions or omissions by another person, provided it was disclosed in good faith and for the sake of safety.

Article 10: DATA COLLECTION AND PROCESSING EXCEPTION REGIME

The operator or aeronautical service provider is required to maintain a safety management system that has a process for the collection, processing and analysis of data and for the use of the information derived from flight information recordings. Any information collected through this process and made available to the Director General of Civil Aviation or his/her counterpart must be regulated by the Principle of Confidentiality and cannot be disclosed nor made available, with the following exceptions:

a) By express requirement of a court of justice that has jurisdiction and that has determined, through other sources that the aeronautical authority has information that could be needed in a criminal investigation.
b) The information disclosed or made available will state facts, avoiding names of individuals.
c) If the aeronautical authority has reasons to believe that the disclosed information is necessary for the cancellation, suspension, or rejection of a certificate or licence issued by the responsible authority.

Article 11: ON FLIGHT DATA RECORDINGS

The information gathered from flight data recordings must not be used to take action or file a procedure against the air operator, its crew, its employees, or any person related or committed with the operator, as a result of actions that generate safety-related information.

Article 12: SAFEGUARDS FOR EMPLOYEES

Aircraft operators must not use the information gathered from flight data recordings in any disciplinary process against their employees, except under certain circumstances established directly in the data collection process.

Article 13: AGREEMENTS WITH THE OPERATOR

In order to promote safety, the responsible aeronautical authority is empowered to enter into agreements with the air operator with respect to the collection, analysis, use, and dissemination of information derived from flight data recordings. Prior to such agreement, the responsible authority must consult with the employees of the operator who will be affected by such agreement.

Article 14: EXCEPTION TO THE CONFIDENTIALITY OF AGREEMENTS

Information disclosed to the responsible aeronautical authority through an agreement with the air operator is regulated by the Principle of Confidentiality and cannot be disclosed nor made available to third parties, except as provided for in the agreement, or in case of an order by a body with the corresponding jurisdiction.

Article 15: PROTECTION OF INFORMATION CONTAINED IN THE AGREEMENTS

Information disclosed to the responsible aeronautical authority under the agreements must not be used to take action or file a procedure against the operator, crewmembers, employees, or individuals related to the operator for violations that result in safety-related information, which is protected by the Principle of Confidentiality.

Article 16: VOLUNTARY REPORTING

The responsible aeronautical authority, as part of the State safety programme, must regulate a voluntary reporting mechanism through which a person, in keeping with the respective regulations, can report safety-related events, including violations, legal provisions, or any other legal instrument, which will be protected by the Principle of Confidentiality.

Article 17: MANAGEMENT OF VOLUNTARY REPORTING

The responsible aeronautical authority must designate a person or body to manage the voluntary reporting mechanism in keeping with the respective regulations.

Article 18: EXCEPTIONS IN VOLUNTARY REPORTING

In case of a voluntary report of a violation under the State Safety Programme, such violation cannot be attributed in any administrative or criminal proceeding that has jurisdiction to see the matter. The Principle of Confidentiality will govern voluntary reports, with the exception of:

a) A violation that occurs during the accident investigation process, which must be investigated within the regulatory framework of accident investigation.

b) A violation involving wilful misconduct or negligence.

c) Failure to submit a voluntary report by an official of an operator or aeronautical service provider that has a safety management system that requires or motivates employees to report any fact affecting or representing a risk to safety.

Article 19: ON THE USE OF INFORMATION

The responsible aeronautical authority, on the basis of the Principle of Confidentiality, is empowered to use the information it deems appropriate or necessary to safeguard safety or any information obtained voluntarily under the State Safety Programme.

Article 20: DISCLOSURE OF INFORMATION AMONG STATES

Information obtained voluntarily under the State safety programme can be disseminated amongst the States with the purpose of improving safety, but without identifying the operators or air service providers or individuals related to the aeronautical activity and should be regulated on the basis of the Principle of Confidentiality.

Article 21: PROTECTION OF THE INFORMANT

Nobody can be required, in connection to a legal or disciplinary process, to provide evidence concerning voluntary information obtained under the State Safety Programme, or in the case of oral or written statement containing voluntary information that must be regulated based on the Principle of Confidentiality.

Article 22: PROTECTION OF THE EMPLOYEE

Voluntary information provided by an employee within the framework of the State safety programme cannot be used for retaliation purposes, including measures that adversely affect the job or working conditions.

Article 23: VOLUNTARY REPORTING MECHANISM

The responsible aeronautical authority, through regulations, must define the way in which the voluntary reporting mechanism established in the State Safety Programme will be established and managed.

APPENDIX B

Complete text of Resolution A 36-9 of the 36th Assembly of ICAO

A 36-9 Protecting information obtained from safety data collection and processing systems in order to improve aviation safety

Whereas the primary objective of the Organization continues to be that of ensuring the safety of international civil aviation worldwide;

Recognising the importance of the free communication of safety information amongst the stakeholders of the aviation system;

Recognising that the protection of safety information from inappropriate use is essential to ensure the continued availability of all relevant safety information, to enable proper and timely preventive actions to be taken;

Concerned by a trend for safety information to be used for disciplinary and enforcement actions and to be admitted as evidence in judicial proceedings;

Noting the importance of a balanced environment in which disciplinary action is not taken as consequence of actions by operational personnel that are commensurate with their experience and training, but where gross negligence or wilful violations are not tolerated;

Mindful that the use of safety information for other than safety-related purposes may inhibit the provision of such information, with an adverse effect on aviation safety;

Considering the a balance needs to be struck between the need for the protection of safety information and the need for the proper administration of justice;

Recognising that technological advances have made possible new safety data collection, processing and exchange systems, resulting in multiple sources of safety information that are essential in order to improve aviation safety;

Noting that existing international laws, as well as national laws and regulations in many States, may not adequately address the manner in which safety information is protected from inappropriate use; and

Noting the issuance by ICAO of legal guidance aimed at assisting States enact national laws and regulations to protect information gathered from safety data collection and processing systems, while allowing for the proper administration of justice;

The Assembly:

1. ***Urges*** all Contracting States to examine their existing legislation and adjust as necessary, or enact laws and regulations to protect information gathered from all relevant safety data collection and processing systems based, to the extent possible, on the legal guidance developed by ICAO, as set out in Attachment E to Annex 13.

2. ***Urges*** the Council to cooperate with Contracting States and appropriate international organisations regarding the development and implementation of guidance to support the establishment of effective safety reporting systems, and the achievement of a balanced environment where valuable information derived from all relevant safety data collection and processing systems is readily accessible, while respecting principles administration of justice and freedom of information;

3. ***Instructs*** the Council to provide a progress report to the next ordinary session of the Assembly on this matter; and

4. ***Declares*** that this resolution supersedes Resolution A35-17.

APPENDIX C

Complete text of ATTACHMENT E to Annex 13 on Aviation Accident and Incident Investigation

Legal guidance for the protection of information obtained through safety data collection and processing systems

1. Introduction

1.1 The protection of safety information is essential to ensure its continued availability, since the use of safety information for purposes other than safety can prevent the future availability of such information, thus affecting safety. This fact was recognised by the 35th Assembly of ICAO, which noted that existing national laws and regulations in many States might not adequately address the manner in which safety information is protected from inappropriate use.

1.2 The guidance contained in this attachment is therefore aimed at assisting States enact national laws and regulations to protect information gathered from safety data collection and processing systems (SDCPS), while allowing for the proper administration of justice. The objective is to prevent inappropriate use of information collected solely for the purpose of improving aviation safety.

1.3 Because of the different legal systems in States, the legal guidance must allow States the flexibility to draft their laws and regulations in accordance with their national policies and practices.

1.4 The guidance contained in this attachment, therefore, takes the form of a series of principles that have been distilled from examples of national laws and regulations provided by States. The concepts described in these principles could be adapted or modified to meet the particular needs of the State enacting laws and regulations to protect safety information.

1.5 Throughout this attachment:

a) *safety information* refers to information contained in SDCPS established for the sole purpose of improving aviation safety, and qualified for protection under specified conditions in accordance with 3.1;

b) *operational personnel* refers to personnel involved in aviation operations who are in a position to report safety information to SDCPS. Such personnel include, *inter alia*, flight crews, air traffic controllers, aeronautical station operators, maintenance technicians, cabin crews, flight dispatchers and apron personnel;

c) *inappropriate use* refers to the use of safety information for purposes different from the purposes for which it was collected, namely, use of the information for disciplinary, civil, administrative and criminal proceedings against operational personnel, or disclosure of information to the public;

d) SDCPS refers to processing and reporting systems, databases, schemes for exchange of information, and recorded information and include:

1) records pertaining to accident and incident investigations, as described in Chapter 5;
2) mandatory incident reporting systems, as described in Chapter 8;
3) voluntary incident reporting systems, as described in Chapter 8; and
4) self-disclosure reporting systems, including automatic data capture systems, as described in Annex 6, Part I, Chapter 3, as well as manual data capture systems.

Note.- Information one safety data collection and processing systems can be found in the ICAO Safety Management Manual *(Doc 9859).*

2. General Principles

2.1 The sole purpose of protecting safety information from inappropriate use is to ensure continued availability so that proper and timely preventive actions can be taken and aviation safety improved.

2.2 It is not the purpose of protecting safety information to interfere with the proper administration of justice in States.

2.3 National laws and regulations protecting safety information must ensure that a balance is struck between the need for the protection of safety information in order to improve aviation safety, and the need for the proper administration of justice.

2.4 National laws and regulations protecting safety information must prevent its inappropriate use.

2.5 Providing protection to qualified safety information under specified conditions is part of the safety responsibilities of a State.

3. Protection Principles

3.1 Safety information must qualify for protection from inappropriate use according to specified conditions that should include, but not necessarily be limited to: the collection of information was for explicit safety purposes and the disclosure of the information would hinder its continued availability.

3.2 The protection must be specific for each SDCPS, based upon the nature of the safety information it contains.

3.3 A formal procedure must be established to provide protection to qualified safety information, in accordance with specific conditions.

3.4 Safety information shall not be used in a way different from the purposes for which it was collected.

3.5 The use of safety information in disciplinary, civil, administrative, and criminal proceedings will be carried out only under suitable safeguards provided by national law.

4. Exception Principles

Exceptions to the protection of safety information shall only be granted by national laws and regulations when:

a) there is evidence that the occurrence was caused by an act considered, in accordance with the law, to be conduct with intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct;

b) an appropriate authority considers that circumstances reasonably indicate that the occurrence may have been caused by conduct with the intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct; or

c) a review by an appropriate authority determines that the release of the safety information is necessary for the proper administration of justice and that its release outweighs the adverse domestic and international impact such release may have on the future availability of safety information.

5. Public Disclosure

5.1 Subject to the principles of protection and exception outlined above, any person seeking disclosure of safety information shall justify its release.

5.2 Formal criteria for disclosure of safety information shall be established, and these will include, but not necessarily be limited to, the following:

a) disclosure of the safety information is necessary to correct conditions that compromise safety and to change policies and regulations;

b) disclosure of the safety information does not inhibit its future availability in order to improve safety;

c) disclosure of relevant personal information included in the safety information complies with applicable privacy laws; and

d) disclosure of the safety information is made in a de-identified, summarised or aggregate form.

6. Responsibility of the Custodian of Safety Information

Each SDCPS shall have a designated custodian.

It is the responsibility of the custodian of safety information to apply all possible protection regarding the disclosure of the information, unless:

a) the custodian of the safety information has the consent of the originator of the information for its disclosure by the custodian; or

b) the custodian of the safety information is satisfied that the release of safety information is in accordance with the principles of exception.

7. Protection of Recorded Information

Considering that ambient workplace recordings required by legislation, such as cockpit voice recordings (CVR), may be perceived as constituting an invasion of privacy for operational personnel that other professions are not exposed to:

a) subject to the principles of protection and exception above, national laws and regulations shall consider ambient workplace recordings required by law as privileged protected information, that is, information deserving enhanced protection; and

b) national laws and regulations shall provide specific measures of protection to such recordings as to their confidentiality and access by the public. Such specific measures of protection of workplace recordings required by law may include the issuance of orders of non-public disclosure.