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Proposal for Amendment to Aeronautical Legislation to Protect Safety Information Sources



Regional Aviation Safety Group-
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1. Introduction

1.1. The aeronautical industry is facing an important challenge that involves cultural change in order to further improve aviation safety levels. This cultural change is being accomplished through implementation of ICAO Safety Management Systems (SMS) by service providers and State Safety Programmes (SSP) by regulatory bodies.

1.2. Although the elements that constitute an SMS or SSP are easy to understand, effective implementation has taken several years and involves the development of new regulations and procedures, personnel training, changes in the organizational culture, and a suitable legal framework.

1.3. Both the SMS and SSP are based on an effective flow of information on hazards as a vital element for continuous safety assessment and deficiency correction. Preventing the inappropriate use of this safety information is fundamental to ensure its continued availability. Use of safety information for other than safety-related purposes may inhibit the future availability of such information consequently adversely affecting safety.

1.4. The aforementioned is easily understood by aviation professionals. Accordingly, there has been extensive debate about the need for ICAO Contracting States to take action regarding the introduction of legislative changes to support what has been called a “just culture,” to promote open reporting systems and protecting data collected for the only purpose of improving safety.

1.5. To this end, ICAO developed Attachment E to Annex 13 - *Aircraft Accident and Incident Investigation* (see **Appendix A**), which contains legal guidance for the development of proposals for amendment to existing legislation. However, to go from the legal principles contained in Annex 13, Attachment E, to a concrete proposal and implementation of an amendment to civil aviation law may represent a significant challenge for many legal experts and also for the aeronautical authorities of the Pan American Region.

ICAO Global Aviation Safety Plan and Global Aviation Safety Roadmap

1.6. The ICAO Global Aviation Safety Plan (June 2007) contains 12 Global Safety Initiatives (GSI). The third global initiative, known as GSI 3, is aimed at efficient reporting of errors and incidents to establish the free flow of data to assess safety risks in the aviation system. The GSI 3 strategy urges Contracting States to introduce regulatory changes to support a “just culture,” promote a voluntary reporting system, and protect data that is only collected for the purpose of improving safety.

1.7. ICAO is also assigned the task of reviewing State 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-America (RASG-PA) implemented Project GSI #3A for the purpose of developing a model proposal for amendment to aeronautical legislation to protect safety information sources as a way to support Contracting States with development of their own legislative changes. Additionally, ICAO Regional Offices for North America, Central America and the Caribbean and South America are carrying out surveys among Contracting States to identify gaps. Regional seminars are planned by RASG-PA to provide more guidance on the topic.

1.9. This work has been possible thanks to funding provided by Boeing and the cooperation and support of the Central American Air Safety Agency (*Agencia Centroamericana de Seguridad Aérea* – ACSA) of the “Corporación Centroamericana de Servicios de Navegación Aérea” (COCESNA), the Civil Aviation Authority of Jamaica, the International Federation of Air Line Pilots’ Associations (IFALPA), Airbus and ICAO who provided legal and technical experts for the development of this proposal for amendment to aeronautical legislation to protect safety information sources.

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

1.11. During the Fifth RASG-PA Executive Steering Committee Meeting held in Sao Paulo, Brazil, on 23 April 2010, concern arose on whether the proposal for the protection of safety information ensured the protection of sources and at the same time promoted its exchange. It was agreed that data originating from the information should be protected and available to all parties interested in safety improvement.

1.12. To address this concern, a team of legal specialists was established to review the proposal during June 2010. As a result, the difference between data and information was reviewed and is reflected in the text previous to the proposal for amendment; specifically, in the definition of information.

1.13. In addition, the nature of the activity, which should be contained in every aeronautical law, was included in the text of the legislating proposal, which specifically expresses the nature of public interest, protection of life guarantee, physical integrity and heritage, both contractual and extra-contractual.

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

2. Background

2.1. The 36th ICAO Assembly adopted Resolution A 36-9 - *Protecting information from safety data collection and processing systems in order to improve aviation safety* (see **Appendix B**). This resolution recognizes 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 accident rate improvement and avoid generating the wrong perception by the public of the risk involved in air transport.

2.3. ICAO international standards have been modified to include the new SMS concepts for service providers and the SSP for regulators, which are based on reactive, proactive, 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, which contemplates voluntary reports made by aviation professionals that may be self-incriminating or based on recordings to be used solely for improving aviation safety.

2.5. Protection against inappropriate use of safety information is fundamental to ensure its continued availability 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 trends to use safety information for the adoption of disciplinary and enforcement measures, evidence in criminal proceedings, and the need 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 recognized that technological developments have given rise to new data collection, processing, and exchange systems that offer multiple information sources, which are essential to improving safety. It is also recognized that among the actions to be taken by Contracting States within the framework of a SSP is the establishment of provisions for the protection of Safety Data Collection and Processing Systems (SDCPS) to motivate people to provide essential information on safety-related hazards to achieve a continuous flow and exchange of safety management data among aeronautical authorities and service providers and 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 willful misconduct.

2.8. The resolution notes that current international agreements, as well as national laws and regulations of many Contracting States, might not be appropriately regulating the protection of safety of sources that provide information against inappropriate use.

2.9. As part of the reforms required for safety improvement, the ICAO Council has approved a series of amendments to the Annexes of 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:
 - Policies and objectives of the State's safety
 - Risk management of the State's safety
 - Safety assurance by the State
 - Promotion of the State's security
- Implementation and maintenance of a SMS for service providers is defined as a systematic safety management approach that covers the organizational 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 and SSP complement each other but are different given the specific characteristics of the regulated and regulatory bodies.

2.11. The table below contains information on the amendments recently approved by ICAO, which incorporate international standards and 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 1: Personnel Licensing	169	2 March 2009
Annex 6 Part 1: Operation of Aircraft	33	2 March 2009
Annex 6, Part 3: Operation of Aircraft: Helicopters	14	2 March 2009
Annex 8: Airworthiness	101	4 March 2009
Annex 11: Air Traffic Services	47	2 March 2009
Annex 14: Aerodromes, Vol. 1	10	4 March 2009

2.12. In order to include international standards to the described safety programmes, these amendments promote open reporting systems and the protection of data gathered for the sole purpose of improving aviation safety based on a “just culture” approach where the traditional confrontational model of government and industry is modified by criteria based on structured programmes for the systematic collection, analysis, and dissemination of safety-related reports and information within an open reporting environment to be used for prevention purposes.

2.13. The information obtained from accurate data is the basis for improving any system. The data collection system must not represent a threat to the person(s) providing the data. The protection of safety information sources and the use of the 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 the environment of trust required in the industry-regulator relationship, an essential element for the implementation of an effective SSP, or the employee-employer relationship, also an essential element to guarantee the effective implementation of a service provider SMS.

2.15. Therefore, in addition to the reforms required for SMS and SSP implementation, Contracting States must adopt safeguard measures or exception regimes in their local aeronautical legislative framework for the protection of sources and use of safety information.

2.16. Those safeguard measures or exception regimes should be based on the Protection and Confidentiality Principles, which should be cited in the proposed legislation.

3. Sources of Safety Information that Require Protection

3.1. During the research to develop a proposal for amendment to current legislation, one of the main concerns had to do with the type of information that needs to be protected. Legal guidance for the protection of information obtained through Safety Data Collection and Processing Systems (SDCPS) as contained in Annex 13 can be a source of confusion in the sense that it is only required 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 analyzed later.

3.2. The conclusion was reached that protection was required for all sources of information used in the SMS and SSP, which effectiveness in achieving performance improvements is 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 generally fall under Annex 13.

Proactive Information

3.4. Proactive information refers to information that is obtained from analyzing the activities of organizations such as audits, surveys, and inspections; it also includes information provided by way of voluntary reports from operational personnel, which is available to the general public in view of its nature.

Predictive Information

3.5. Predictive information substantiates real-time system performance in daily operations 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 Flight Data Analysis (FDA) or Flight Operations Quality Assurance (FOQA).

3.6. The next section will analyze the role of information in determination of 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, which is applied in countries of European continental tradition, or Anglo-Saxon Law, known as Common Law, which is 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 legal system determined by either historical or geographical tradition, it is the obligation of the Rule of Law to regulate individual behaviour in order to establish 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 Contracting 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 defense of community interests by trying to determine guilt or willful 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 caused in a concrete activity, whether incurred with the intention of causing damage, due to willful misconduct, 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 responsibility that generates a legal obligation or doing or not doing.

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 Contracting 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 experience an accident or incident without willful or criminal intent resulting from various technical circumstances that involve air traffic management, aircraft velocity, the flammable nature of the liquids contained in operating systems, atmospheric conditions, among other factors known to contribute to accidents and incidents.

4.11. Liability can result from risk, without the existence of 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 willful misconduct as 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 role of the pilot-in-command flying the aircraft is to take it to destination safely. International statistics derived from accident investigations have not registered any event where the cause of the accident has been the willful intent to cause damage, since the pilot would also be at risk.

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

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. Investigation of an aviation incident or accident seeks to identify the probable causes of an event related to an air operation that generates specific damages to an individual or the community in order to prevent recurrence. In this sense, it must comply with 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,”* since its purpose is prevention rather than punishment.

4.17. It must also be noted that, in accordance with Annex 13, Standard 5.4, 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. Nevertheless, Annex 13, Standard 5.10, recognizes the need for coordination between the investigator-in-charge and the legal authorities, and even considers the likelihood that a representative of the latter guards the flight recorders.

4.18. Annex 13, Standard 5.12, considers 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. Annex 13, Attachment E in items 2.2, 2.3, and 2.4, state 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. Attachment E, Paragraph 3.5, offers 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. Attachment E, Paragraph 4, offers guidance to Contracting States 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 willful misconduct.

4.22. It must also 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 by the 1999 Montreal Convention and national legislation, which contemplate contractual and extra-contractual indemnity assumptions.

4.23. Further, in terms of air transport, a high-level of specialization 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.

4.24. An air incident or accident has very complex implications; a high-level of aeronautical expertise is required in order to carry out an objective investigation of the facts to determine the causal link between the fault committed by one person and the damage suffered by another.

4.25. If persons without aviation knowledge and experience are involved in the investigation, objectivity might be at risk, consequently forcing related State legal regulations.

5. The Imperative of Change and Safety Information Management

5.1. National legal instruments on aviation matters must meet 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 current Montreal Convention, in terms of private aeronautical law.

5.2. The constant growth of air operations generates the imperative to change the traditional way of improving safety. This change reflects the vision of assigning more importance to the identification and analysis of everyday errors by all operational and technical sources available, from a reactive, proactive, and predictive angle, as compared to the traditional approach of improving safety based on the investigation of accident causes to prevent their recurrence. The new approach requires information from all sectors involved in aeronautical activity as the primary source for correlating 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 information as necessary 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 the acquired knowledge should 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 minimizing risk while 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 safety improvement of air operations.

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

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

5.9. Additionally, learning safety lessons from associated accidents and incidents requires a legal base that will allow independent and impartial investigations and prevent 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 safeguard measures and exception regimes need to be incorporated into the aeronautical legislation of the Contracting States where the value of sources and use of information is protected under the Principle of Confidentiality and could be used for the sake of improving safety. By protecting the flow of information among the various aeronautical stakeholders, it will be possible to effectively implement and maintain a SSP and SMS.

5.12. The safeguard measures or exception regimes of sources and use of information is only possible within certain parameters that must be explicitly typified in aeronautical regulations, since being a source of information for the establishment of possible responsibilities should be regulated by legislative reforms that contain the nature, objective, and principles in which such safeguard measures or exception regimes should be operated.

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 C** contains a model proposal for amendment to aeronautical legislation to protect safety information sources that may serve as guidance material for Contracting States in the development and implementation of their own proposals for amendment to their national legislation.

6. Implementation Strategy

6.1. To be effective, it is clear that the changes required for both SMS and SSP are very complex. Accordingly, Contracting 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.

6.2. The nature of the topic poses a challenge for legal experts on aeronautical matters to find a way to incorporate safeguarding measures to protect safety information or create exception regimes in their local legislation. This document may be used as guidance material to address this challenge.

6.3. It is recommended that each State create a small national team comprised of legal experts, representatives of the industry and/or related organizations, and led by the aeronautical authority to develop the proposal for amendment for their national legislation. In accordance with their legal system, the experts must identify the corresponding legal instrument that will permit the incorporation of the safeguarding measures required to protect safety information.

6.4. Given the implications of this topic, it is important for the national team to prepare the groundwork for the appropriate law-making bodies and be in a position to explain the importance of approving the proposed safeguarding measures at the legislative level.

6.5. This national team should monitor the entire process until reaching the final objective of approving the safeguard measures or exception regimes and report periodically to RASPG-PA on the obstacles encountered during the approval and implementation process in order to analyze them jointly and determine required assistance.

6.6. It is highly recommended that legal advisors of the DGCA's be trained on the importance of the proposed changes and on the need for changing the concept of responsibility through regional seminars.

6.7. Depending on the level of difficulty experienced by the Contracting States in making legislative changes, it could be advisable to consider the advantages of making these legislative changes through an international legal instrument.

7. Status of Implementation in the NAM/CAR/SAM Regions

7.1. As part of the work on GSI 3, a questionnaire was developed to determine the status of implementation of related laws, regulations, and programmes in the Contracting States. In Objective 3b of the Global Aviation Safety Roadmap on “best practices,” ICAO is required to review State activities regarding identification of gaps in their respective legislative systems in order to promote open reporting systems and develop a plan to eliminate such gaps.

7.2. Pursuant to these objectives and recommendations, the first workshop on the Global Aviation Safety Roadmap, held in May 2008 in Bogota, Colombia, was the catalyst for the development of a questionnaire in which the NAM/CAR/SAM Contracting States were asked to inform ICAO of any legislation, regulations, and programmes for the promotion of an effective flow of safety information.

7.3. From the responses of the 43 Contracting States and Territories in the NAM/CAR/SAM Regions, it was 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.

7.4. The RASG-PA/02 Meeting carried out in Bogota, Colombia, from 3 to 6 November 2010, agreed on an implementation plan that will be regularly updated by the ICAO NACC and SAM Regional Offices through State Letters and reviewed at RASG-PA annual meetings. This plan includes forming a national team led by each civil aviation authority and supported by the industry to develop and promote approval of their own proposal.

APPENDIX A
ATTACHMENT E to Annex 13 on
Accident and Incident Investigation
Legal Guidance for the Protection of Information Gathered from 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 Contracting 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 Contracting 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 Contracting States, the legal guidance must allow Contracting 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 Contracting 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 on 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 Contracting 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. Principles of Protection

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. Principles of Exception

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.

APPENDIX B

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

A 36-9 - Protecting information 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 Contracting 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 Contracting 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
Model Proposal for Amendment
to
Aeronautical Legislation to Protect Safety Information Sources

PREAMBLE

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 Contracting States to incorporate into their national legislation the Standards and Recommended Practices of the International Civil Aviation Organization (ICAO), translated into Annexes.

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

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

- Annex 1: Personnel Licensing, Amendment 169, adopted on 2 March 2009
- Annex 6 Part 1: Operation of Aircraft, Amendment 33, adopted on 2 March 2009
- Annex 6 Part 3: Operation of Aircraft: Helicopters, Amendment 14, adopted on 2 March 2009
- Annex 8: Airworthiness, Amendment 101, adopted 4 March 2009
- Annex 11: Air Traffic Services, Amendment 47, adopted on 2 March 2009
- Annex 14: Aerodromes, Vol. 1 Amendment 10, adopted on 4 March 2009

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

- Implementation and maintenance of a State Safety Programme (SSP)
- Implementation and maintenance of a Safety Management System (SMS)

These reforms become international obligations and are based on the need to improve safety where the flow of information gathering as a source to identify 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.

Aeronautical activity involves different actors that allow aircraft to fly in the airspace.

The management systems for service providers that are incorporated as an international requirement in the Annexes to the Chicago Convention create the need for the industry as a whole, including 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. Sources and use of information in the aeronautical context must be protected as a fundamental condition for the investigation and continuous improvement 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 person(s) 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 safety management systems is based on the flow of information required for subsequent analysis using risk management techniques and 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 safeguard measures or exception regimes in aeronautical legislation of Contracting States where the value of information is protected for safety purposes.

Only by protecting the flow of information within the various sectors of aeronautical activity can a State Safety Programme and a Safety Management System be implemented and maintained.

This protection of information through safeguard measures or exception regimes is only possible within certain parameters that must be regulated explicitly in aeronautical legislation, since being a source of information for the establishment of possible responsibility. It must be typified through legislative reforms that regulate the nature, objective, 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.

PROTECTION AND USE OF SOURCES OF INFORMATION FROM SAFETY DATA COLLECTION AND PROCESSING

Article 1: NATURE

This law is of public interest and considered essential for the air transport service. Contracting States should ensure life, physical integrity, and legacy protection both in the contractual and non-contractual environment.

Article 2: OBJECTIVE

The objective of this law is to protect the use of safety information from Safety Data Collection and Processing Systems (SDCPS) that have been developed with the aim of improving safety.

Article 3: SCOPE

This law is limited in its application to the safety information collected in SDCPS, with the exception that its provisions do not apply to use of information collected or generated during the course of aircraft accident and incident investigations that are governed in accordance with Annex 13 to the Convention on International Civil Aviation or by a State's official aircraft investigation agency.

Article 4: APPROPRIATE USE OF SAFETY INFORMATION

This law protects against the inappropriate use of safety information from SDCPS. Subject to the exceptions stated below, herein, this information should be solely used for safety improvement purposes and not for disciplinary, civil, administrative, or criminal proceedings against any personnel nor disclosure of the information to the public.

Article 5: PRINCIPLES

For the application of this law, the following principles shall be taken into consideration:

- a) **Principle of Protection.** It considers essential the protection of life, physical integrity, safety of individuals and corporations, and legacy within the context of the aeronautical activity. In addition, as part of this law, it is also important to protect data collection and processing as well as safety information aimed at ensuring the highest safety margins in air operations and related activities.
- b) **Principle of Confidentiality.** All data collection and processing of safety information, its flow, and the administrative activity related to these actions as established in item a), should be reserved solely for safety improvement set out herein.

Article 6: SAFETY MANAGEMENT SYSTEM

A Safety Management System (SMS) is a documented risk management process that is part of a SCDP and integrates technical operations and systems with the management of financial and human resources in order to minimize risks and make continuous aviation safety improvements to protect public interest.

Article 7: CONTRACTING STATE OBLIGATIONS

With regard to the management systems defined in the previous article, the competent 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, aeronautical service provider, or aeronautical equipment manufacturer implements an effective Safety Management System (SMS) accepted by the State; and
- d) Include the financial resources necessary for the implementation of the State Safety Programme in the State's national budget.

Article 8: CONTRACTING STATE RESPONSIBILITIES

The Director of the Civil Aviation Authority or equivalent is the administration official responsible for coordinating the activities of the various organizations 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, aeronautical service providers, and aeronautical equipment manufacturers that require a Safety Management System; and
- c) To require operators, aeronautical service providers, and aeronautical equipment manufacturers that need a Safety Management System, to improve, amend, or take corrective measures in their system, when deficiencies or gaps representing a risk that might compromise the safety of aeronautical activities are identified.

Article 9: EXCEPTIONS TO THE PRINCIPLE OF CONFIDENTIALITY

The aeronautical authority should ensure that an operator, aeronautical service provider, or aeronautical equipment manufacturer that has a Safety Management System is protected by the Principle of Confidentiality. The aeronautical authority may only use safety information to prevent future accidents or incidents, except in the following circumstances:

- a) By express requirement of a court of justice with jurisdiction and that has determined that the aeronautical authority has information that might be necessary for a criminal investigation; or
- b) That a competent authority considers that the circumstances reasonably indicate that the event may have been caused by conduct with the intent to cause damage, or with the knowledge that damage would probably result, equivalent to reckless conduct, gross negligence, or willful misconduct; or
- c) There is evidence that the event has been caused by an act which, in accordance with the law, is considered with the intent to cause damage, or with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or willful misconduct; or
- d) A review by an appropriate authority determines that the release of the safety information is necessary for the proper administration of justice, on that, and that its release outweighs the adverse domestic and international impact such release may have on the future availability of safety information.

Information that is disclosed or made available should not include the names of individuals. However, a jurisdictionally competent court of justice or other legal authority may, after considering the negative impact of the release of the names of individuals on the future availability of safety information, order that the disclosure of the names of individuals is necessary for the proper administration of justice.

Article 10: SAFEGUARD MEASURES

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

Article 11: SAFEGUARD MEASURES RELEVANT TO INFORMATION ON THIRD PARTIES

The operator, aeronautical service provider, or aeronautical equipment manufacturer required to maintain a Safety Management System must not take action that could adversely 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 safety purposes.

Article 12: EXCEPTIONS TO PROTECTION OF DATA COLLECTION AND PROCESSING

Data collection, processing, analysis, and use of the process of safety information provided by a Safety Management System, which is maintained by an operator, aeronautical service provider, or aeronautical equipment manufacturer, whether obliged to maintain such a system or not, are protected by the Principle of Confidentiality and such information cannot be disclosed or be made available except in the following cases:

- a) By express requirement of a court of justice with jurisdiction and that has determined that the aeronautical authority has information that might be necessary for a criminal investigation; or
- b) That a competent authority considers that the circumstances reasonably indicate that the event may have been with the intention to cause harm, or with the knowledge of the possibility that this event could occur and is equivalent to a reckless behaviour, gross negligence, or a malicious act; or
- c) There is evidence that the event has been caused by an act which, in accordance with the law, is considered with the intention to cause harm, or with knowledge of the possibility that it could occur and is equivalent to reckless behaviour, gross negligence, or malicious act; or
- d) 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 future availability of safety information.

Information that is disclosed or made available should not include the names of individuals. However, a jurisdictionally competent court of justice or other legal authority may, after considering the negative impact of the release of the names of individuals on the future availability of safety information, order that the disclosure of the names of individuals is necessary for the proper administration of justice.

Article 13: FLIGHT DATA RECORDINGS

Subject to the exceptions in Article 12, which apply equally here, the safety information gathered from flight data recordings must not be used to take disciplinary action or initiate legal proceedings against the air operator, its crew, its employees, any person related to the operator, or a third party as a result of actions that generate safety-related information.

Article 14: SAFEGUARDS FOR EMPLOYEES

Air operators must not use the safety information gathered from flight data recordings in any disciplinary action against their employees.

Article 15: AGREEMENTS WITH THE OPERATOR, AERONAUTICAL SERVICE PROVIDER OR AERONAUTICAL EQUIPMENT MANUFACTURER

In order to promote safety, the competent aeronautical authority is empowered to enter into agreements with the air operator, aeronautical service provider, or aeronautical equipment manufacturer with respect to the collection, analysis, use, and dissemination of safety information. The safeguard measures described in Articles 10, 11, 13, 14 and 16 of this law are an essential part of these agreements.

Article 16: PROTECTION OF INFORMATION CONTAINED IN THE AGREEMENTS

Safety information resulting from the agreements mentioned in Article 15 of this law and provided to the competent aeronautical authority must not be used to take action or initiate legal proceedings against the air operator, its crew, its employees, or a third party due to the fact that such information is relevant for safeguarding safety and protected by the Principle of Confidentiality.

Article 17: EXCEPTIONS TO THE CONFIDENTIALITY OF AGREEMENTS

Information provided to the competent aeronautical authority and resulting from the agreements mentioned in Article 15 of this law is regulated by the Principle of Confidentiality and cannot be disclosed nor made available except:

- a) By express requirement of a court of justice with jurisdiction and that has determined that the aeronautical authority has information that might be necessary for a criminal investigation; or
- b) That a competent authority considers that the circumstances reasonably indicate that the event may have been with the intention to cause harm, or with the knowledge of the possibility that this event could occur and is equivalent to a reckless behaviour, gross negligence, or a malicious act; or
- c) There is evidence that the event has been caused by an act which, in accordance with the law, is considered with the intention to cause harm, or with knowledge of the possibility that it could occur and is equivalent to reckless behaviour, gross negligence, or malicious act; or
- d) 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 future availability of safety information.

Information that is disclosed or made available should not include the names of individuals. However, a jurisdictionally competent court of justice or other legal authority may, after considering the negative impact of the release of the names of individuals on the future availability of safety information, order that the disclosure of the names of individuals is necessary for the proper administration of justice.

Article 18: VOLUNTARY REPORTING

The competent aeronautical authority, as part of the State Safety Programme, must regulate a voluntary reporting mechanism through which a person, in accordance with the corresponding 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 19: MANAGEMENT OF VOLUNTARY REPORTING

The competent aeronautical authority must designate a person or body to manage the voluntary reporting mechanism in accordance with the corresponding regulations.

Article 20: CONFIDENTIALITY OF VOLUNTARY REPORTING

According to the State Safety Programme, in the case of voluntary reporting of a violation, no administrative or court proceeding can be opened against the informant by an authority competent in this matter. Any voluntary reporting must be regulated by the Principle of Confidentiality.

Article 21: EXCEPTIONS TO THE CONFIDENTIALITY OF VOLUNTARY REPORTING

Information provided pursuant to a voluntary reporting programme, such as described in Article 18, is protected by the Principle of Confidentiality and such information cannot be disclosed or be made available except in the following cases:

- a) By express requirement of a court of justice with jurisdiction and that has determined that the aeronautical authority has information that might be necessary for a criminal investigation; or
- b) That a competent authority considers that the circumstances reasonably indicate that the event may have been with the intention to cause harm, or with the knowledge of the possibility that this event could occur and is equivalent to a reckless behaviour, gross negligence, or a malicious act; or
- c) There is evidence that the event has been caused by an act which, in accordance with the law, is considered with the intention to cause harm, or with knowledge of the possibility that it could occur and is equivalent to reckless behaviour, gross negligence, or malicious act; or
- d) 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 future availability of safety information.

Information that is disclosed or made available should not include the names of individuals. However, a jurisdictionally competent court of justice or other legal authority may, after considering the negative impact of the release of the names of individuals on the future availability of safety information, order that the disclosure of the names of individuals is necessary for the proper administration of justice.

Article 22: USE OF SAFETY INFORMATION

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

Article 23: DISCLOSURE OF SAFETY INFORMATION AMONG CONTRACTING STATES

Safety information obtained voluntarily under the State Safety Programme can be disseminated among Contracting States with the purpose of improving safety, but without identifying operators, aeronautical service providers, aeronautical equipment manufacturers, or individuals related to the aeronautical activity, and should be regulated by the Principle of Confidentiality.

Article 24: PROTECTION OF THE INFORMANT

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

Article 25: PROTECTION OF THE EMPLOYEE

Voluntary information provided by an employee as part of the State Safety Programme cannot be used for retaliation purposes, including measures that adversely affect the job or working conditions.

Article 26: VOLUNTARY REPORTING MECHANISM

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