

International Civil Aviation Organization Fourth Meeting of the Regional Aviation Safety Group

- Pan America (RASG-PA/04)

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Agenda Item 4: RASG-PA Projects

4.1 RASG-PA GSI-3.Project – Effective Errors and Incidents Reporting

ALTERNATIVE ACTIONS TO MITIGATE THE LACK OF LEGISLATION TO PROTECT SAFETY INFORMATION

(Presented by Brazil)

SUMMARY

This Working Paper presents the progress made within the RASG-PA GSI 3/3.b project on the initiatives of Brazil aiming at the necessary protection of flight safety information, in special those concerning the investigation of accidents, including the advances related to a legislative mark of reference.

References:

• (GSI-3) Efficient notification of errors and incidents.

Strategic Objective(s)

This working paper is related to Strategic Objective(s) A – Safety – Programme # 3

1. Background

- 1.1 The Aeronautical Accident Investigation and Prevention Center (CENIPA) is the Military Organization of the Brazilian Air Force (FAB) responsible for the activities of prevention of aircraft accidents, including the investigation of civil and military aviation occurrences. The CENIPA was created in 1971 by the Decree No. 69,565, as the central organization of the Aeronautical Accident Investigation and Prevention System (SIPAER). In Brazil, the creation of CENIPA represented the emergence of a new philosophy, in which investigations have to be conducted with the sole purpose of promoting the "prevention of aeronautical accidents," in accordance with international standards.
- 1.2 To accomplish its mission, the CENIPA develops educational, operational and regulatory activities annually. Moreover, as the central body of the SIPAER, its duties are the supervision, planning, control and coordination of aeronautical accidents investigation and prevention activities. Such actions are performed in a universe that involves the three Armed Forces (Brazilian Navy, Army and Air Force), the National Civil Aviation Agency (ANAC), the Brazilian Airport Infrastructure Enterprise (Infraero), and the airline companies, among other representative entities.
- 1.3 In the civil aviation realm, the CENIPA has 07 Regional Aeronautical Accident Investigation and Prevention Service Offices (SERIPA). Strategically distributed in the Brazilian territory, the SERIPA's perform all the activities related to the investigation of aircraft accidents and incidents.

- 1.4 The CENIPA and the SERIPA's have teams on the alert 24/7 to carry out the initial action of investigation. In conducting the initial action, support from the Air Force is sometimes used, through helicopters and planes, making it possible for the investigators to reach places that would be otherwise difficult to access, in addition to carrying debris in inaccessible areas, and move quickly and efficiently.
- 1.5 During the phase of analysis, which sometimes includes the removal of engines, research of fuels and lubricants, analysis of flight instruments, analysis of fractures in parts of the aircraft, the CENIPA counts on the support of the Department of Aerospace Science and Technology (DCTA). This organization of the Brazilian Air Force has equipment and highly qualified personnel, capable of performing the necessary examinations and research.
- 1.6 At the end of the investigation, the CENIPA issues a Final Report (FR) with flight safety recommendations (RSV). Additionally, the CENIPA sends all reports required by the Chicago Convention Annex 13 to the ICAO and to the countries participating in the investigation. It also designates accredited representatives to participate in investigations abroad, as required by Annex 13.
- 1.7 The CENIPA possesses a flight data laboratory (LABDATA) capable of retrieving and analyzing the data in flight recorders of civil and military aircraft both from Brazil and other countries. This laboratory provides the investigators with the ability to perform deep analysis of FDR and CVR recorded information. The laboratory systems allow high level extraction and handling of data by means of mathematical and statistical operations, with the development of visual graphics and animation that allow the reproduction of the flight path, engine parameters and other information essential to the investigation and analysis of the occurrence.
- 1.8 The entire LABDATA operation takes place in a controlled access environment, and the safeguarding of information is in accordance with the FAB and ICAO Annex 13 standards. In 2010, the Laboratory already had the ability to read out the vast majority of the data recorders fitting the Brazilian Aviation. In the same period, readout and analysis activities were carried out in support of Bolivian and Colombian investigation agencies. Over forty investigations were supported by the LABDATA in the last two years. The LABDATA is currently investing resources in personnel training and in the purchasing of specific material for the readout of badly damaged data recorders.
- 1.9 The CENIPA also has a number of tools to act directly on prevention. The Prevention Report is a voluntary reporting tool widely used by the Brazilian aviation community, and it aims at fostering the adoption of preventative measures in the various organizations in a proactive manner and without punitive purposes. In addition to this report, there is the Flight Safety Confidential Report (RCSV), which is a tool that allows the forwarding of information directly to the CENIPA, keeping the identity of the reporter in secrecy. This procedure makes it possible to process the information without fear of reprisal against the reporter.
- 1.10 One further preventative tool is the Aeronautical Accident Prevention Program (PPAA), which enables the analysis of trends, by means of statistical data of the organization, as well as the implementation of operator-specific programs, such as prevention of CFIT, FOQA, LOSA, avian risk prevention, prevention of drug and alcohol abuse, and conservation of hearing, among other ones. Besides, the PPAA allows the operator to organize flight safety educational and promotional activities, thus becoming an essential tool for the dissemination of the flight safety culture in Brazil.

- 1.11 Still in the area of prevention, the CENIPA encourages the making of flight safety inspections, with the objective of providing advice to the chief of an organization, through a detailed analysis of his/her organization, highlighting the conditions of risk observed, the risk analysis and recommended mitigation actions. Such inspections, which can be made by the operator, allow the chief to know the operating conditions of his/her business more deeply and accurately, allowing the adoption of preventative measures in a proactive fashion.
- 1.12 Every year, in the educational area, the CENIPA promotes a schedule of flight safety seminars and courses, intended for personnel training, updating and improvement, as well as for the exchange of information with friendly countries. This human resources policy enables the system to maintain and develop its specialized technical work. The elements of the system maintain constant exchange programs with schools, universities, civil and military organizations, both national and international, specialized in Flight Safety Programs. This is the way that the Command of Aeronautics, to which CENIPA belongs, develops its Flight Safety Policy and Philosophy for all segments of the Brazilian aviation community.
- 1.13 Each year, the CENIPA offers the military and civilian community an average of 15 different courses, all free of charge. The main courses are: the Aeronautical Accidents Prevention Course (Human Factor, Material Factor, Aircraft Maintenance, Air Space Control, Airport Activities), Distance Basic Aeronautical Accident Prevention Course (the first such course graduated 450 students, and was held in the months of July and August 2011), Civil and Military Advanced Management Training for the Prevention of Accidents, and Flight Safety Course (CSV), which forms aeronautical accident investigators. In the last five years, an average of 780 flight safety professionals has been trained in these courses. Throughout its existence, the CENIPA has trained 326 flight safety professionals from foreign countries (Angola, Argentina, Bolivia, Chile, Colombia, Costa Rica, Ecuador, Italy, Mozambique, Nicaragua, Panama, Paraguay, Peru, Portugal, Sao Tome and Principe, Sweden, Suriname, Togo, Uruguay and Venezuela). In the 2011 CSV course, there are 16 foreign students enrolled (from Angola, Bolivia, Colombia, Ecuador, Mozambique, Panama and Venezuela) to be trained in the Prevention and Investigation modules.

2. Project regarding the Flight Safety Information Protection in Brazil

- 2.1 Currently, the CENIPA participates in the Task Force on Safety Information Protection (SIP TF). This group was created in the International Civil Aviation Organization (ICAO) to provide recommendations for the improvement of SARPs or the development in the new SARPs, aiming at the protection of flight safety information. ICAO considers that the existence of legal safeguards to protect such information is essential to encourage reporting and cooperation among the participants.
- 2.2 The SIP TF Group met on the ICAO premises in Montreal on 20 June and 21 September 2011 to start working. Various subgroups were created and a deadline was set for the delivery of the final work, as well as intermediate deadlines for each subgroup. The end product of the SIP TF is supposed to be submitted within one year and will comprise recommendations to ensure an appropriate level of flight safety information protection not related to the accident/incident investigation process, as well as certain information from aircraft accidents and incidents.
- 2.3 The action of CENIPA in protecting the safety of flight information is not restricted to participation in the SIP TF group. In Brazil, the CENIPA has participated actively in the Bill 2453/2007, which provides for the protection of the investigations conducted by the SIPAER.

- 2.4 This law refers to the inviolability of the investigation confidentiality, and is divided into four sections. The first section deals with the independence of the SIPAER investigation relatively to other investigations, such as police enquiries for judicial purposes, and establishes that investigators can not take part in both investigations simultaneously. Other sections deal with the SIPAER investigation competence, professional secrecy and information protection, as well as access to the wreckage.
- 2.5 The section dealing with professional secrecy and protection of information initially describes the sources of SIPAER information, including the FDR, CVR, recordings of the air traffic control agencies, voluntary reporting systems, automated and manual systems for data collection and others. This section also contains the prohibition of using certain information in the police investigation or in the judicial prosecution, besides forbidding the SIPAER professional to reveal his/her sources and contents. Also in this section, is the legal guarantee that the information provided to the SIPAER investigation and other activities will only be used for the prevention of accidents, and have their confidentiality assured.
- 2.6 The Bill 2453/2007 is considered by CENIPA as of significant importance to the protection the SIPAER information sources, and a significant legal milestone for better accident prevention in Brazil. However, the progression of the legislative process is far too slow, resulting in that the aforementioned Bill has not been voted by the Congress yet.

3. Alternative actions

- 3.1 The CENIPA, in its concern with the misuse of flight safety information, has been developing other actions to ensure that this information is used only to prevent accidents. One of the most promising activities has been based on a greater institutional integration between the CENIPA and the Judiciary Branch, through courses for members of the Justice (1st and 2nd instance judges, public ministry and law enforcement agencies) in order to clarify the ins and outs of the SIPAER investigations and of the prevention tools used in the Brazilian aviation.
- 3.2 The first course on "The Challenges of the Aeronautical Law and the Military Administrative Law" was held in Recife (PE), with the support of the Federal Judiciary School of the 5th Region, and was given in three days. The course was developed by the Federal Court of the 5th Region, in partnership with CENIPA, serving the purpose of promoting and upgrading the judiciary members. This course was approved by the National School for the Education and Training of Judges ENFAM.
- 3.3 The main topics discussed were the international treaties to which Brazil is a signatory country (Chicago Convention); investigation and prevention of aeronautical accidents, with a real case study; airspace control system; bird strike risk; and clandestine radio stations all correlated with the performance of the Brazilian courts. Participants in this course also visited the Integrated Air Defense and Airspace Control Center of Recife, where they saw the airspace control system in operation.
- After this first successful step, the CENIPA intends to reach the other regions of the country with the same course, always in partnership with the Schools of Magistrates. The results have been amazing and acceptance by the Judiciary Branch was excellent. As fruits from this strategy, one can mention the good coordination between law enforcement agencies and SIPAER investigators on the occasion of an actual accident occurrence, when all professionals were able to work smoothly because they were aware of the responsibilities of one another.

- 3.5 Another important positive result was the decision made by a federal magistrate, following a request of a public attorney to have full access to the CENIPA investigation data related to an aeronautical accident, which was being the subject of police investigation. The judge's decision limited the access of the police and Federal prosecutors to the CENIPA information, based on item 3.1 of Annex 13 to the Chicago Convention.
- 3.6 Initially, the magistrate recognized the objective impediment established by the Chicago Convention. Moreover, considering that the SIPAER investigation is not focused on the determination of guilt or liability, and that it may even establish hypotheses or possibilities in its investigation, the federal judge evaluated that a strong subjective incompatibility falls upon the SIPAER investigation if it were to be used for judicial purposes.
- 3.7 When the members of the Judiciary Branch develop a deeper understanding of the world aviation system, as well as of the aviation industry practices and, especially, of international agreements, including the Annexes to the 1944 Chicago Convention, they are enabled to make better judicial decisions concerning the protection of flight safety, independently of the fact that the country still does not have a specific law regarding the subject.

4. Conclusion

4.1 The development of other actions with the objective of mitigating the problems associated with the lack of protection of flight safety information, especially by means of a better institutional integration between the State organization responsible for the investigation of aeronautical accidents (CENIPA) and the Judiciary Branch, has shown that satisfactory results may be obtained while a significant legislative milestone on this issue is still being processed.

5. Suggested Action

- 5.1 The Fourth Meeting on the Pan American Regional Aviation Safety Group (RASG-PA/04) is urged to:
 - a) take notes and comment on the information provided in this Working Paper;
 - b) consider the experience obtained in Brazil to guarantee proper protection of flight safety information, especially the one related to the alternative actions to be taken in face of the lack of a significant legislative reference on this issue.