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Agenda Item 2: Global and inter-regional activities

2.2 Implementation of safety management systems (SMS) in CAR/SAM States

SMS IMPLEMENTATION IN CHILE

(Presented by Chile)

SUMMARY

This working paper explains to GREPECAS/15 how the Directorate General of Civil Aviation (DGCA) of Chile started implementation of the Safety Management System (SMS) by establishing general guidelines at the institutional level and determining the initial need for drafting the National Safety Plan at the level of the providers and operators of the aeronautical system in the country.

1. Introduction

1.1. Initially, the International Civil Aviation Organization included safety management requirements in Annexes 11 “Air Traffic Services” and 14, Volume I “Aerodrome Design and Operations.” The need to incorporate this concept was seen later and its provisions were harmonised in Annex 6 “Aircraft Operations,” parts I and III. Today, ICAO is studying the feasibility of extending the SMS and its corresponding requirements to other Annexes to the Chicago Convention.

1.2. The cited requirements make States responsible for establishing a Safety Programme and, as part of that programme, require certified air service operators, maintenance organisations, air traffic service providers, and aerodrome operators to implement a Safety Management System. Lastly, the requirements give States the responsibility for establishing an acceptable level of safety in the activities or provision of the cited services.

1.3 Within this context, the DGCA has adopted as the vision for its Strategic Plan for 2008-2012: “To project itself as an Intelligent Public Service capable of anticipating technological changes and oriented toward excellence in the provision of services and handling of its users.”

1.4 In light of that stated in the previous paragraph, the DGCA has embarked upon SMS implementation, considering that it has an organisational structure that includes internal providers of aeronautical services, such as air traffic services and airport services, as well as providers outside the institution, including air transport and aeronautical maintenance centres, all of which must implement

Safety Management Systems, according to the general and specific standards that the National Aeronautical Authority (DGCA) may establish for that purpose, in accordance with the.

2. Background

2.1 Document 9859, "Safety Management System Manual."

2.2 Recommendations taken from Resolutions on aviation accidents and incidents occurred in the national territory.

2.3 Statistical analysis of the causes of accidents and incidents in Chile over the period 2000-2006.

3. Lines of action

3.1 Establish regulations at the institutional level for implementation of the Safety Management System (SMS).

3.2 Draw up the National Safety Plan involving the Safety Management System (SMS) for the air transportation industry, particularly national and international airlines, aeronautical companies, air clubs, general aviation and such others as may operate within the national territory.

3.3 Define the way in which the Safety Management System model established by ICAO will be applied, based on the situation of the national aeronautical system.

3.4 Arrange for the necessary measures, actions and tasks to implement the Safety Management System, in accordance with paragraph 3.3.

3.5 Take specific action, within the different DGCA bodies, to secure the implementation of the Safety Management System, in keeping with the phases to be completed over the period 2007 – 2013.

3.6 Adjust the organisational structure of the DGCA in order to make the Safety Management System (SMS) operable, creating a Flight Protection Department to assume that task.

4. Phases for the implementation of the Safety Management System (SMS) in the DGCA

4.1 Phase I, SMS Culture (03/2007 – 06/2008)

4.1.1 During this phase, the critical mass of professionals in the DGCA was formed, giving them the knowledge and awareness regarding the importance, significance, objectives of and need for implementing the Safety Management System concept in the National Aeronautical System.

4.1.2 The foregoing was accomplished through courses, seminars and talks, according to ICAO recommendations, and also through the dissemination in computer media like the Intranet and Internet.

4.1.3 Today the DGCA has twelve SMS instructors accredited by ICAO in SMS, trained in the country and abroad. It should be emphasised that one of them belonged to the team of experts that in the ICAO Regional Office in Lima, Peru prepared the manuals that will soon be distributed to the States for the preparation of the Safety Management Programmes and the SMS for aeronautical service providers.

4.1.4 It should be noted that to date all of the institution's high-level management has been trained in SMS, including the Director General. Nine formal courses have been offered on the subject for 473 professionals of the institution and 52 specialists from outside the institution, thus starting the dissemination of the SMS concept to members of the National Aeronautical System, thus contributing to the creation of the SMS culture in the national aeronautical setting.

4.1.5 In April of this year, a workshop was held in Chile to "Develop Guides for the Implementation of Phases 1 and 2 of the Safety Programme." Based on ICAO documentation, its objective was to draft a guide for use in the workshops designed for the implementation of phase 1 of the State Safety Programmes (SSP) and phases 1 and 2 of the integrated airport/air traffic service SMSs.

4.1.6 The Accident Prevention Department is in charge of carrying out the SMS Implementation Programme in the DGCA, which covers the following topics: flight data (proactive and predictive) analysis, confidential flight safety reporting system, risk management, safety assurance, safety promotion, and participation in "Emergency Response (ERP)" management.

4.2 Phase II, Organisation and formulation of the State Safety Programme (SSP) (07/2008 – 06/2010)

4.2.1 Once the critical mass of DGCA specialists sensitised to SMS had been obtained, two analytical committees were formed. Both were made up of representatives with a decision-making capacity from different areas of the institution, and who must act in coordination, based on the following terms of reference:

1. Develop norms to regulate the processes of SMS implementation, maintenance and improvement, both inside the DGCA and in the rest of the National Aeronautical System, by formulating the following projects:
 - (DAR) Norms establishing the guidelines for the SMS concept and the State Safety Programme, in accordance with the national reality.
 - (DAP) Procedure regulating SMS implementation in National Aeronautical System providers outside the DGCA.
 - (PRO) Procedure to regulate SMS implementation in National Aeronautical System providers that are part of the organisational structure of the DGCA.
2. Organise practical SSP and SMS models applicable to internal DGCA organisations that act as National Aeronautical System providers, developing and implementing pilot SSP and SMS programmes, with the aim of establishing positive aspects capable of being improved.

4.2.2 To this end, each Committee must also coordinate with the body responsible for SMS within the Department, in order to start producing the data that will make it possible to determine the need to maintain, modify, or renew the safety standards and indicators used in the SMS pilot programme, and take action accordingly.

4.2.3 During phase II, National Aeronautical System providers that do not belong to the DGCA will continue to be sensitised, with a view to obtaining the commitment of top management of the respective organisations, in keeping with the need to comply with SMS implementation in the National Aeronautical System.

4.2.4 The various National Aeronautical System providers may participate in this phase as observers, so that they can assess DGCA processes in relation to the SMS, thus permitting better feedback in order to optimise those processes and thus facilitate the implementation of their respective SMSs.

4.2.5 The responsible Department and the Committees shall organise the National SMS Plan, scheduling full SMS implementation chronologically and defining the responsibilities and tasks of each on the components of the National Aeronautical System, according to the established timetable.

4.2.6 Once all aspects capable of being improved have been optimised, as proposed for this phase, the latter shall be considered concluded.

4.3 Phase III, SMS implementation in the National Aeronautical System (07/2010 – 06/2013)

4.3.1 This phase will begin with the publication of the (DAR, DAN, PRO) norms associated with the SMS, after which the SSP and SMS will be officially implemented in the internal DGCA organisations under the direct supervision of the analytical committees created during the previous phase, in coordination with the corresponding body of the Flight Protection Department.

4.3.2 National Aeronautical System providers will be trained for the implementation of their respective SMSs, taking into account the aspects recommended by ICAO, together with the experience acquired during the implementation of pilot SMSs in the DGCA.

4.3.3 Each National Aeronautical System provider will be required to submit an implementation programme that shall consider the phases recommended by ICAO. The corresponding DGCA departments will oversee the fulfilment of the cited programme, in order to identify opportunities for improvement and resolve below-standard conditions.

4.3.4 Providers that already have management systems, either of quality or integrated, shall comply with the SMS standard established by the DGCA, with no limitations to such higher standards as may be self-imposed.

4.4 Phase IV, Maintenance and continuous improvement of SMS standards

4.4.1 Once the SMSs have been implemented, the relevant DGCA bodies shall verify that National Aeronautical System providers, both in and outside the institution, maintain and comply with the processes designed for the continuous improvement of acceptable safety levels, according to ICAO standards and in keeping with national regulations.

4.4.2 The data obtained during this phase will be used to optimise the State Safety Programme (SSP), continuing with the continuous improvement of the system, giving priority to safety assurance.

5. Suggested action

The Meeting is invited to:

- a) Analyse the information provided in this working paper.
- b) Consider the possibility of producing a “directory” that identifies States, Organisations, and the respective “focal points” or professionals responsible for the

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SMSs, thus allowing for the exchange of experiences and feedback on the various SMS implementation programmes in the CAR/SAM Regions. This would make it possible to optimise and expedite their start-up.

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