



ICAO

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Asia and Pacific Office

Tenth Meeting of the Asia Pacific Accident Investigation Group (APAC-AIG/10)

(Bangkok, Thailand, 9-10 November 2022 — Hybrid Format)

Agenda Item 7: Any Other business

TSIB'S EXPERIENCE IN PREPARING FOR ICAO SSP IMPLEMENTATION ASSESSEMENT

(Presented by Singapore)

SUMMARY

This paper discusses the TSIB's experience in preparing for the ICAO State Safety Programme Implementation Assessment (SSPIA).

1. INTRODUCTION

1.1 ICAO assesses the level of maturity of a State's aviation safety management system via the State Safety Programme Implementation Assessment (SSPIA) by conducting a systematic and objective review of the State's implementation and maintenance of its SSP. The results of the SSP do not affect a State's Universal Safety Oversight Audit Programme (USOAP) effective implementation values.

1.2 The eight SSPIA areas are General aspects (GEN)¹, Safety Data Analysis (SDA)², Personnel Licensing and Training (PEL), Aircraft Operations (OPS), Airworthiness of Aircraft (AIR), Air Navigation Services (ANS), Aerodrome and Ground Aids (AGA) and Aircraft Accident and Incident Investigation (AIG).

1.3 There are three SSP PQs in AIG to review the State Accident Investigation Authority's (AIA) competency in identifying safety management related aspects (SMRAs) in an accident or incident, where relevant, and the investigation into these SMRAs, as follow:

SSP.AIG.001 How does the investigation authority ensure that the personnel responsible for addressing safety management related aspects in aircraft accident and serious incident investigations develop the required competencies?

This question is about how an AIA identifies the competencies it needs (whether available in-house or from external sources), and what training is provided to achieve these competencies.

¹ GEN includes questions on legislation, training to achieve competencies, etc.

² SDA includes questions on State authorities' access and contributions to the State incident database and hazard register.

- SSP.AIG.002 What guidance material has been established for use by the personnel of the State's accident investigation authority to help ensure that safety management related aspects are appropriately addressed in investigations when relevant?

This question is about the development of guidance material by the AIA and how the guidance material is used in an investigation to determine whether the SMRAs are relevant in an investigation.

- SSP.AIG.003 To what extent has the investigation authority addressed safety management related aspects in its investigations, when relevant?

This question looks at how the AIA has used the guidance material and methodology to address SMRAs, where relevant, in its investigation. The AIA must be able to demonstrate that in each of its investigation, the SMRAs are evaluated and included in the investigation reports, where relevant.

1.4 Besides the three AIG PQs, there are other SSP PQs in GEN and SDA that also require the inputs from the State's AIA.

2. DISCUSSION

2.1 The SSPIA involved all relevant entities in the management of aviation safety in Singapore. As part of the preparations, TSIB and Civil Aviation Authority of Singapore (CAAS) carried out a self-assessment of SSP implementation, with TSIB focusing on AIG and CAAS on the other areas. The self-assessment was carried out by a team of local experts who had experience in ICAO SSPIAs and in the development and implementation of safety management systems.

2.2 To answer the three AIG PQs, TSIB sent its investigators for SMS and SSPIA related courses. TSIB also identified two SMS experts to supplement the TSIB's pool of investigators for investigations involving complex SMS issues. A guidance material on the investigation of SMRAs was developed to provide guidance to the investigation of SMRAs. All TSIB's investigators have been trained to get themselves familiarised with the guidance material, apply it in all the investigations to sift out SMRAs and where relevant, include the SMRAs in the investigation report.

2.3 In addition, TSIB and CAAS worked together and developed the National Aviation Safety Plan and SSP document. Few months prior to the SSPIA, TSIB was informed that the AIG PQs would not be assessed. This SSPIA only assessed the GEN, SDA, OPS and AGA. Nevertheless, TSIB continued working with CAAS and contributed to AIG-related information for Singapore's responses to some PQs in GEN and SDA, for examples:

- SSP.GEN.03 What documentation has the State established for SSP implementation, including top-level documentation that describes the specific activities and responsibilities related to the management of safety that each State authority under the SSP is in charge of?

- SSP.GEN.05 How has the State established and communicated its safety policy?

SSP.GEN.06	How does the State determine the SSP-related training needs at all levels of the organization to ensure that personnel of the State authorities involved in SSP implementation are qualified and competent to perform their functions and responsibilities?
SSP.GEN.13	How is safety information shared between the State and service providers and amongst service providers?
SSP.GEN.14	How does the State foster a positive safety culture?
SSP.SDA.01	What safety data collection and processing systems has the State established to support safety data analysis at the State level?
SSP.SDA.02	How and to what extent has the State established and implemented a State-level voluntary reporting system to facilitate the collection of safety data and safety information that may not be captured by mandatory safety reporting systems?
SSP.SDA.03	To what extent do the State's legislation, policies, procedures and/or practices protect safety data captured by, and safety information derived from, mandatory and voluntary safety reporting systems and related sources?
SSP.SDA.04	To what extent has the State established and maintained a safety database or databases to store and process relevant safety data, including data on hazards and safety risks?

2.4 The SSPIA for Singapore took place on 4-15 April 2022, under the Phase 2 assessment by five ICAO assessors. Singapore was the first State to have been assessed under the revised SSPIA methodology. The format of the SSPIA was very different from a typical USOAP audit. The compliance approach, i.e. "satisfactory versus non-satisfactory", used in traditional USOAP Continuous Monitoring Approach activities was not adapted for evaluating the State's effectiveness in implementing the SSP, given that implementation was "performance-based" in nature. The SSP maturity is assessed in five levels:

- 0 Not present and not planned
- 1 Not present but being worked on
- 2 Present
- 3 Present and effective
- 4 Present and effective for years and in continuous improvement

2.5 For the assessment of Singapore's SSP, the maturity level was assessed up to level 3 only³. The ICAO SSP assessors were interested in learning about the evolution of the Singapore's aviation safety programme journey. During the SSPIA, the ICAO SSP assessors provided feedback on Singapore's progress and achievements as well as opportunities for further enhancement.

³ ICAO did not assess Singapore for Level 4 as Level 4 requires an element of time. ICAO does not intend to assess Level 4 for any State at the present moment.

3. ACTION BY THE MEETING

3.1 The Meeting is invited to discuss and share their views on the ICAO SSPIA and TSIB is happy to share its experience in detail should APAC-AIG members require more information.

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