

ICAO Safety Management Panel: Working Program 2014-17

Capt. Gustavo Barba
Member of the Board of Directors
IASO



Introduction

- Panel work under the direct control of the ANC through the Panel Secretary.
- The duty of members is to contribute substantially to the Panel's work.
- Nominated by States or international organizations, panel members are appointed as individual experts to assist the ANC in the study and resolution of technical problems for the benefit of all Member States and international civil aviation.
- Effective accomplishment of tasks assigned to panels requires that the members act in their personal, expert capacity and not as representatives of their nominators.

Active working programme

The SMP job cards, approved by the ANC, defining the active work programme of the Panel:

1. Interface between SMSs and between SMSs and SSPs
2. Guidance material related to multi-level safety management implementation issues
3. Guidance material to support States in fulfilling their safety management responsibility
4. Guidance material to support SMS implementation
5. Safety data and safety information collection, analysis, sharing and exchange
6. SSP promotion and training
7. International provisions addressing ground handling at aerodromes
8. RPASP Detect and Avoid (DAA) 2020
9. RPASP Operations 2018
10. SMS for Organizations responsible for type design or the manufacture of engines and propellers
11. Approval and global recognition of AMOs

Interface between SMSs and between SMSs and SSPs

There is currently no guidance material available that describes the interface between the SMSs of service providers as well as between the SMSs of service providers and the SSP(s) of States.

Guidance material needs to be developed to describe the interfaces described below:

- Interface between the SMSs of multiple service providers from the same or different domains
- Interface between the SMSs of multiple service providers within one State or across multiple States
- Interface between the SMS of service providers who hold approvals from multiple States and the SSPs of those States

Guidance material related to multi-level safety management implementation issues

Several concepts impact the implementation of safety management at both the State and service provider levels. In addition, ICAO has received many queries regarding the business case cost benefit analysis for the implementation of safety management.

Detailed guidance material should be developed in close coordination with all stakeholders to address the following issues at both the State and service provider levels: safety culture; scaling the SSP/SMS so that it is commensurate with the size and complexity of the operation or activity; tools for assessing a service provider's SMS; and, establishing the acceptable level of safety performance to be achieved by the State.

Guidance material to support States in fulfilling their safety management responsibility

States with a USOAP EI above 60%, focusing on implementing SSP by 2017. In addition, the ICAO initiative introduced at the HLSC 2015, No Country Left Behind, highlights a need to support States in developing a mature safety oversight system.

- New USOAP protocol questions related to safety management that are based on Annex 19 and the third edition of the SMM and plans to apply them beginning in January 2018 for States with an EI above 60%. However, there remain SARPs that are not well supported by clear and detailed guidance material which would facilitate the implementation of SSP and the achievement of the GASP objectives, support auditing activities and the development of safety management training

additional guidance should also be developed to address how a State may delegate functions related to its SSP to another State or RSOO while still fulfilling its obligations under the Chicago Convention

- A comprehensive review of the guidance material also needs to be conducted to ensure sufficient information is available to support States in implementing SSP, support the assessment of the newly introduced USOAP safety management related protocol questions by States and auditors, and support the development of training. This would involve the review of the document reference identified for each protocol question to determine if the guidance is sufficiently clear and detailed and developing any additional guidance required.

Guidance material to support SMS implementation

The Safety Management Manual provides generic guidance for the implementation of SMS, but does not highlight examples of SMS for service providers from different domains

- Many approved training organizations and approved maintenance organizations currently undergo approvals from multiple States and an approach has not been developed to facilitate the common acceptance of SMS to avoid the unnecessary duplication of effort.

Sector-specific examples on implementing SMS across service providers from different domains should be provided in the ICAO guidance material to assist States and service providers in understanding what is required. Guidance is also needed to facilitate the common acceptance of SMS. The need for additional guidance to support the proposed SMS provisions for Amendment 1 to Annex 19 should be assessed, including but not limited to the following:

- defining SMS safety objectives;
- extension of SMS across multiple service provider activities; and
- criteria to be established by the State of Registry for the SMS of international general aviation

Safety data and safety information collection, analysis, sharing and exchange

To facilitate understanding and implementation of Annex 19, guidance material (existing or new), is required to clarify relevant concepts and to provide practical examples.

- Annex 19 Chapter 2, Note 2 refers, supplementary safety management provisions specific to individual service providers or operators are contained in other Annexes. There is a recognized benefit to the effective implementation of an SSP to have an integrated approach for the collection and analysis of the safety data and safety information from all sources.

To facilitate the implementation of the provisions related to safety data and safety information collection, analysis, sharing and exchange in Annex 19, the GM to be developed should;

- Promote an integrated approach to the collection and analysis of safety data and safety information from various sources;
- Facilitate the analysis of safety data and safety information; and
- Support the sharing and exchange of safety information

SSP promotion and training

During the HLSC 2015 States emphasized the need to provide additional support to assist States in implementing SSP and achieving the GASP objectives

- Additional guidance and sharing of experiences are necessary for States to further develop and implement SSPs
- ICAO should develop guidance and mechanisms for sharing best practices to support SSP implementation

Suggested promotional material, workshop material and training material should be developed

International provisions addressing ground handling at aerodromes

A safe and reliable flight requires a whole range of ground services to be safely and successfully completed on the ground between aircraft arrival and departure, according to a common set of requirements that can be implemented worldwide in a standardized manner

- With the growth of air traffic, ground operations have become increasingly complex. More and larger aircraft, an increase in ground support equipment and faster turnaround times, all contribute to the challenge of improving operational safety. Ground handlers face a complex and potentially dangerous environment on the ramp. Currently, aircraft ground damage and personal injury costs billions of dollars and thousands of lost man hours per year.

The Air Navigation Commission (ANC) needs to determine the status and future needs of international provisions for airport ground handling at aerodromes. Within ICAO there is, inter alia, development of a new Chapter 5: Aerodrome Operational Management to PANS-Aerodromes.

- Within industry there are additional undertakings, e.g. the IATA Safety Audit for Ground Operations (ISAGO) and its complementary ISAGO Standards Manual and IATA Ground Operations Manual (IGOM), and other industry documentation such as produced by ACI and IBAC.
- A gap analysis has been done by a Ground Handling Task Force (GHTF) to determine what is needed in the way of ICAO provisions that will complement and complete an international package of needed provisions and best practices. The GHTF is tasked with identifying global best practices and procedures that could be made available, explore the specific responsibilities to be addressed, and to further its coordination with the SMP and OPSP.

RPASP Detect and Avoid (DAA) 2020

There is an increasing demand for RPAS operators to be able to operate in non-segregated airspace and at aerodromes. Provisions of the Chicago Convention apply, however they cannot be implemented as written for manned aviation. States, industry and operators need SARPs and related guidance material on how to safely and efficiently address RPAS.

Initial SARPs on detect and avoid (DAA) for adoption in 2020 and related guidance. Due to complexity of the DAA issue, the ASBU Block 1 timeline 2018 cannot be met, however some benefits may be found in the near- and mid-term with enhanced guidance material as the subject is progressed in various regulatory groups and standards developing organization

RPASP Operations 2018

There is an increasing demand for RPAS operators to be able to operate in non-segregated airspace and at aerodromes. Provisions of the Chicago Convention apply, however they cannot be implemented as written for manned aviation. States, industry and operators need SARPs and related guidance material on how to safely and efficiently address RPAS

Initial SARPs for RPAS operations for adoption in 2018 and related guidance. In accordance with Annex 2, Appendix 4, RPAS operators shall be certified by the State of the Operator. The RPAS operator certificate (ROC) is similar to an air operator certificate, however no distinction is made between commercial and general aviation. Requirements related to RPAS operator responsibilities, operations specifications and safety management need to be developed, as well as a template for the ROC.

SMS for Organizations responsible for type design or the manufacture of engines and propellers

Existing aircraft certification and manufacturing provisions described in Annex 8 are not totally suitable for the adoption and implementation of SMS provisions for an organization responsible for type design or manufacture of engines and propellers.

The extension of SMS to engine and propeller design and manufacturing organizations was put on hold pending further review of the specific or unique features that these activities may need in addition or alternative to the existing provisions applicable to other aviation fields.

- In particular, these new provisions should provide a suitable framework for the acceptance and issuance of type certificates by a State of Design for an engine or a propeller, and for the manufacturing activities of engines and propellers (ex; Definition of State of Manufacturing). The review should also consider the need for the development of associated provisions in Annex 19.

Approval and global recognition of AMOs

The conference requested ICAO to develop a globally harmonized approach to the approval and recognition of an approved maintenance organization (AMO).

Even though there are ICAO Standards for the approval of AMOs, aircraft maintenance is not considered “exportable”. Airlines nowadays enter into contractual arrangements for maintenance services outside their State of Registry and the Operator. In addition, numerous States are required to apply their own approval requirements

- Consequently, AMOs performing maintenance on an international basis may face a multiplicity of requirements and must maintain multiple procedures manuals, quality assurance systems and personnel requirements, and undergo multiple inspections from the various States whose operators use its services
- As a result, multiple sets of Standard Operating Procedures (SOPs) exist and, consequently, this introduces a safety concern. Additionally this may also introduce a resource burden on States oversight systems without a demonstrable improvement in safety

Overview of Annex 19 proposed amendments

- **Adopted: 2 March 2016**
- **Approved: 11 July 2016**
- **Applicable: 7 November 2019**

Integration of State safety management responsibilities

- define the relationship between the eight critical elements of a State safety oversight (SSO) system and the SSP framework

Enhancements to SMS provisions and extension of SMS applicability

- extending the applicability of SMS to organizations responsible for the type design and/or manufacture of engines and propellers
- For areas of aviation activity that have the potential to introduce hazards to the safe operation of aircraft, the SMP concluded that existing service providers should address these activities as part of their SMS through interface management

Protection of safety data, safety information and related sources

- The main objective was to ensure clarity and consistency of the proposed provisions, and ensure no overlap with provisions on protection of investigation records accorded in Annex 13.

In summary: SMP working program [2014-17]

- 1. Integration of SSOS and SSP**
- 2. Implementation based in GASP (including State RBO)**
- 3. Development of GMs and tools to facilitate SPs' SMSs, implementation SPIs/ALoSP and acceptance by multiple States**
- 4. Enhanced provisions for the collection, analysis and protection of safety data and information**
- 5. Extension of the applicability of the Safety Management System provisions (handling, MET, SAR, AIS, CNS, etc.)**