

**15th STEERING COMMITTEE MEETING**  
**Update on ICAO SSP and SMS Implementation**  
**Discussion Paper 6**  
**(Presented by the CTA)**

**SUMMARY**

The purpose of this paper is to update the Steering Committee Meeting on developments concerning State Safety Programme and Safety Management Systems implementation and the Global Aviation Safety Plan (2013).

## **1 Background**

1.1 The ICAO Council approved a recommendation from the March 2010 ICAO High Level Safety Conference (HLSC) to develop a new Annex dedicated to States' safety management responsibilities and processes, including those framed under the SSP. To that end, during the 186<sup>th</sup> Session of the Air Navigation Commission, it was agreed to establish the Safety Management Panel (SMP) to provide recommendations on the development of the new Annex. It was considered that this would provide an opportunity to review and harmonize existing safety management provisions.

1.2 In response to the HLSC 2010 recommendation 2/5, the Air Navigation Commission recommended that the new Annex be developed in 2 phases:

- Phase 1 involved the consolidation of existing safety management provisions (then contained in 6 different Annexes) into a single new Annex,
- Phase 2 will address the development of enhanced requirements once the new Annex (1<sup>st</sup> edition) becomes applicable.

1.3 Based on the recommendations of the SMP, Annex 19 – Safety Management, was adopted by the ICAO Council on 25 February 2013 and became applicable on 14 November 2013.

1.4 The second phase of the SMP's work consists in further developing the provisions of Annex 19 first edition, taking into consideration all comments and issues identified during the first phase of the project. This work programme for the second phase initially included four issue-based work tasks approved on 1 June 2012 and then subsequently amended in February 2013 and January 2014 for a total of 7 work tasks as follows:

- 1) development of amendments to SSP provisions;
- 2) development of amendments to SMS provisions;
- 3) development of emergency response plan provisions; and,

- 4) enhancement of provisions for the collection, analysis and protection of safety data and safety information.
- 5) further development of SMS and SSP implementation and assessment tools;
- 6) extension of the applicability of the SMS provisions; and
- 7) enhancement of provisions for the integration of SMS and SSP activities.

1.5 The third edition of the Safety Management Manual (SMM) (Doc 9859), published in May 2013, was updated and restructured into four chapters:

- Chapter 1 - Safety Management Fundamentals
- Chapter 2 - Safety Management SARPs,
- Chapter 3 - State Safety Programme (SSP); and,
- Chapter 4 - Safety Management Systems (SMS).

The SMM 3rd contains enhanced guidance materials for SSP and SMS implementation, including criteria for defining an acceptable level of safety performance through the development of safety performance indicators. Guidance for implementing SSP using a four-phase approach is also provided.

1.6 The ICAO Safety Management website (<http://www.icao.int/SafetyManagement>) has been updated as part of ICAO's roll out plan for the new Annex 19. The website provides valuable information, including:

- History and overview of ICAO safety management provisions;
- List of safety management guidance material;
- ICAO safety management tool kit;
- Links to safety management material developed by other organisations;
- Information on how the USOAP will address safety management provisions;
- Annex 19 promotional material, including various presentations;
- Latest developments; and
- Frequently Asked Questions (FAQs).

1.7 ICAO is developing a safety management standardized training package (STP) expected to be launched in 2015. The Standardized Training Package will consist of a blended learning approach, combining computer-based training (CBT, or e-learning) with face-to-face classroom activities. The CBT portion of the STP would ensure that participants have a homogeneous level of knowledge on safety management, while the classroom activities would reinforce the concepts that they can then apply in the workplace. The STP would primarily target State regulatory personnel involved in the implementation and operation of the State safety programme (SSP) and may also provide guidance to service providers' personnel in charge of the implementation and operation of their safety management system (SMS).

1.8 The Regional Aviation Safety Groups (RASGs) have been invited to identify activities, including required resources, to support the Annex 19 roll-out plan as well as the effective implementation of SMS and SSP provisions.

1.9 States, through their RASGs are strongly encouraged to report progress on their implementation of SSP and SMS provisions, which is essential to guide the future development of safety management provisions (Phase 2).

## **2 Global Aviation Safety Plan – 2013**

2.1 The Global Aviation Safety Plan (GASP) 2013 was endorsed by the 38<sup>th</sup> Session of the ICAO Assembly. The GASP establishes that a mature safety oversight system is a prerequisite to the implementation of SSP. Future amendments to the GASP will be developed through a consultative process with States and international organizations.

2.2 Continuous improvement in global aviation safety is necessary to ensure that air transport continues to play a major role in driving sustainable economic and social development. Air traffic is projected to double in the next 15 years. Current and emerging safety risks must be addressed proactively to ensure that capacity expansion is carefully managed and supported through regulatory and infrastructure developments.

2.3 States and regions must remain focused on establishing, updating and addressing their safety priorities as they continue to encourage expansion of their air transport sectors. Global, regional and State aviation safety planning is essential to ensure that continuous safety improvement and harmonized global air navigation modernization advance hand-in-hand.

2.4 The GASP has been changed in order to strengthen its role as a high-level policy, planning and implementation document. The GASP is intended to assist ICAO, States and regions in their aviation safety policy, planning and implementation activities.

The GASP:

- sets out the global air navigation safety objectives, including specific milestones and priorities to be addressed by State and regional aviation safety planners;
- provides a familiar planning framework to assist States and regions to make improvements in safety through the use of the four Safety Performance Areas:
  - standardization,
  - collaboration,
  - investment
  - safety information exchange.
- outlines implementation strategies and best practice guidance material to assist States and regions to tailor State and regional solutions to address the global objectives and priorities.

2.5 The GASP sets out a continuous improvement strategy for States to implement over the next 15 years through the establishment of core, and then more advanced, aviation safety systems. The target dates and the broad objectives are:

- (a) *Near-Term (by 2017)* Implementation of an effective safety oversight system
- (b) *Mid-Term (by 2022)* Full implementation of the ICAO State safety programme framework
- (c) *Long-Term (by 2027)* Advanced safety oversight system including predictive risk-identification capabilities and predictive risk modeling systems.

2.6 ICAO safety priorities continue in three areas

- improving runway safety;
- reducing the number of Controlled Flight into Terrain (CFIT) accidents ;and,
- reducing the number of loss of control in-flight accidents and incidents.

These actions will contribute to the overall priority of the GASP to continually reduce the global accident rate.

2.7 Priorities should be set for efforts to increase adherence to ICAO standards and recommended practices (SARPs). States having a USOAP effective implementation of less than 60% should increase compliance in areas that resolve deficiencies in the certification of aerodromes, air operators, air navigation service providers and other entities providing aviation services. This is particularly important in the areas of fundamental State safety oversight related to the approval, authorization or certification of service providers and personnel licensing. The priority for States having significant safety concerns (SSC) should be to address the SSC before concentrating on increasing overall compliance.

2.8 In the near term States that have achieved USOAP effective implementation levels over 60% should fully implement their SSP by 2017. All Member States should fully implement their SSP by the year 2022.

### **3.0 Integrated Safety Trend Analysis and Reporting System (iSTARS) 2.0/SPACE**

3.1 The integrated Safety Trend Analysis and Reporting System (iSTARS) is a web based system linking a collection of safety datasets and related web application to perform online safety and risk analysis.

3.2 iSTARS is used primarily by ICAO Member State's and contains classified information. Aggregated safety data relative to audit results or accident statistics are public and distributed through this website as they become available. ICAO Member State representatives can register and have access to the complete application on the ICAO Secure Portal. Instructions for obtaining a username and password to iSTARS 2.0/SPACE can be found on this link:

<http://www.icao.int/safety/iStars/Pages/default.aspx>.

3.3 An SSP gap analysis tool based on 3rd edition of the SMM is available on iSTARS 2.0/SPACE (<https://portal.icao.int/SPACE/pages/SSP-Gap-Analysis.aspx>). States with a USOAP effective implementation (EI) above 60% are encouraged to create a project and complete this gap analysis as it will assist them in determining what steps are needed to implement the SSP provisions and also provide valuable feedback to ICAO on the progress being made worldwide. The tool allows multiple users to fill in the questionnaire and write action plans for a specific project. States may also choose whether or not other iSTARS users will be able to see their project.

## **4 Discussion**

4.1 COSCAP has been providing safety management training on a regional as well as on an individual basis to Administrations, commencing in May 2006 with SMS training courses, and thereafter adding State Safety Programme (SSP) training. Safety management training includes concept courses, implementation workshops and support to develop SMS safety oversight procedures/tools.

4.2 ICAO has developed a comprehensive set of safety management PQs based on the provisions of Annex 19. They have been available to States as of the last quarter of 2014 on the USOAP CMA Online Framework, along with the 2014 amendment of the other PQs. While the 2014 amendment of the other PQs will be applied for USOAP monitoring activities as of 1 January 2015, ICAO will not begin monitoring the new safety management PQs until 1 January 2016.

4.3 States with an EI of over 60 per cent will have until the end of 2015 to complete their self-assessments and to submit related evidence through the CMA Online Framework. Starting on 1 January 2016, ICAO will determine the status of the new safety management PQs through appropriate USOAP CMA activities.

4.4 COSCAP has identified that there is a need to provide support to States for the implementation of SMS and SSP, with particular emphasis on safety performance measurement (acceptable level of safety – ALOS). To strengthen performance measurement, COSCAP has developed a 3 day safety performance workshop which has been delivered in Seoul, 14 to 16 May 2013 and Beijing 23 to 25 October 2013. Additional deliveries occurred in DPRK 20 to 23 August 2013) and Mongolia (17 to 19 February 2014).

4.5 Further, COSCAP in collaboration with the ICAO Integrated Safety Management Section has developed a 3-day workshop on SMS processes for Hazard Identification and Risk Management. The initial deliveries of this workshop were delivered in December 2013 in Bangkok and Kathmandu. The CTA has delivered HIRM Workshops in Mongolia and DPRK.

4.6 The ICAO safety management training material is also being updated to reflect the latest safety management developments. It is expected to be launched in 2015 and will use a blended training approach consisting of five computer-based training (CBT) modules and on-site workshops.

4.7 In addition, ICAO offers an Analysis Workshop to support the development of the skills needed by States and industry to capture and store safety data as well as for manipulating and integrating data to facilitate hazard identification and risk mitigation. Information on the Analysis Workshop can be found on SPACE/iSTARS 2.0.

## **5 Recommendations**

5.1 The COSCAP-NA Steering Committee Meetings should be utilized as a forum to provide Member Administrations with the latest developments concerning SMS and SSP.

5.2 With due consideration of priorities considered under the GASP, Member Administrations should complete the development and implementation of their SSP as well as SMS requirements for service providers in an expeditious manner.

5.3 To support SSP and SMS implementation, COSCAP-NA should continue to provide courses, workshops, seminars and consultation as needed to assist Member States in meeting the requirements of ICAO SARPs related to SSP and SMS implementation.

5.4 Members which have not yet done so should complete the compliance checklist for the new *Annex 19 – Safety Management* and take action to update national provisions, or file differences as appropriate. COSCAP-NA can assist as required.

5.5 Members should conduct self-assessments, including submission of evidence, on the set of safety management PQs based on the provisions of Annex 19 along with the 2014 amendment of the other PQs. While the 2014 amendment of the other PQs will be applied for USOAP monitoring activities as of 1 January 2015, ICAO will not begin monitoring the new safety management PQs until 1 January 2016.