



WORKING PAPER

THIRTEENTH AIR NAVIGATION CONFERENCE

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COMMITTEE B

- Agenda Item 6: Organizational safety issues**
6.2: Implementation of safety management
6.2.3: Developing safety intelligence

**THE USE OF SAFETY DATA AND SAFETY INFORMATION
AT THE STATE LEVEL**

(Presented by the International Air Transport Association (IATA),
the International Federation of Air Line Pilots' Associations (IFALPA) and
the International Federation of Air Traffic Controllers' Associations (IFATCA))

EXECUTIVE SUMMARY

A *State's* oversight obligations include the need to maintain an overall view of the safety performance of its aviation system. This requires a systematic and integrated application of the safety management principles by both the State, and its service providers.

In a WP to the 39th Assembly (A39_WP_117), IATA raised concerns regarding the possibility that States would misinterpret Annex 19 SARPs by making voluntary or auto-data capture systems mandatory. In response, the Assembly resolved to request that ICAO facilitate industry/State collaboration in establishing safety data collection and processing system (SDCPS) models that meet the needs of Annex 19 while also addressing the raised concerns.

Following the conclusion of the 39th Assembly, IATA was informed that some States have indeed indicated their intent to mandate the exchange of raw flight data and other voluntary and internal reports as submitted, to support their SSP activities. Although it is within a States authority to do so, it appears that this approach is contrary to the information protection principles contained within Annex 19 as amended, diminishes the spirit of collaboration between service providers and State authorities, and conflicts with the very purpose of the safety management principles.

The context of safety data and information, must be understood in order to come to correct conclusions. Due to a lack of context, significant risks may be introduced if this data and information is misinterpreted, not to mention the degradation of voluntary safety reporting systems. All of this can be contrary and damaging to safety management as a whole.

As such, IATA and its members and IFALPA continue to espouse the notion of industry / State collaboration models that:

- 1) meet the needs of a State SSP to manage safety at the State level;
- 2) address the concerns of airline operators and other aviation stakeholders on the use of information from voluntary reporting and auto data capture systems;
- 3) establish protocols to maintain the de-identification of individual service provider data; and
- 4) adhere to the protection principles as outlined in Annex 19.

Action: The Conference is invited to agree to the recommendations in paragraph 4.1.

¹ English, Arabic, Chinese, French, Russian and Spanish versions provided by IATA.

1. INTRODUCTION

1.1 Since the 1970s, provisions requiring States to establish safety data or reporting systems have been included in ICAO Annexes and documents. Most are sector specific safety reporting systems, except those from Annex 13 — *Aircraft Accident and Incident Investigation*, which are focused specifically on accidents and serious incidents.

1.2 According to Article 37 of the Convention on International Civil Aviation (Chicago Convention), existing SARPs related to safety reporting in individual Annexes are required to be implemented by each State. Procedures for Air Navigation (PANS) do not have the same status as SARPs, but similarly, States are required to publish up-to-date lists of significant differences from PANS documents in their aeronautical information publications, as they complement their related Annexes (Ref. Assembly Resolution 38-11).

1.3 All safety data and safety information deemed relevant by a State, is in scope for a State safety programme (SSP). As such, safety reporting provisions in existing Annexes and PANS, which are considered to be important to safety, are part of the inputs supporting an SSP.

1.4 Annex 19 — *Safety Management*, was adopted 14 November 2013. It consolidated material from existing Annexes regarding SSP, safety management system (SMS) and the collection and use of safety data, into one Annex allowing States to focus their attention on the importance of integrating the safety management of diverse aviation activities, while also facilitating the evolution of SMS by harmonizing provisions applicable to different types of service providers. It also included the elevation of State Safety Oversight activities outlined in Doc 9734, *Safety Oversight Manual*, Part A — *The Establishment and Management of a State Safety Oversight System*, to Standards, included in Appendix A.

1.5 On 2 March 2016, ICAO adopted Amendment 1 to Annex 19, which further developed the safety management provisions. Specifically, it upgraded SSP provisions integrated with the State safety oversight (SSO) system and critical elements (CEs); enhanced SMS provisions; extended SMS to organizations responsible for the type design and/or manufacture of engines and propellers; and enhanced provisions for the protection of safety data, safety information and related sources. This amendment becomes applicable 7 November 2019.

2. DISCUSSION

2.1 ICAO requirements include that States establish an SSP to ensure an acceptable level of safety is established and maintained in their civil aviation systems. States are further required to ensure that SMS is implemented by service providers (SPs), including commercial air carriers operating in accordance with Annex 6 — *Operation of Aircraft*.

2.2 Both systems have similar framework elements and complement each other, in order to achieve effective safety management in a civil aviation system.

2.3 As SSP and SMS are both performance-based systems, Annex 19 requires that safety data collection and processing systems (SDCPSs) be established, to capture, store, aggregate, and enable the analysis of safety data and safety information to support their respective safety management activities.

2.4 With SMS, SPs must identify and manage safety risks, as well as monitor the ongoing safety performance of their respective organizations. Similarly, the State SSP outlines the requirement for States to identify and manage safety risks to the State's entire civil aviation system and measure safety performance of the State, and not individual SPs.

2.5 States have an obligation to maintain an overall awareness of the safety performance level its aviation system is delivering, and ensure that proper actions are taken to address intolerable risks. It requires a systematic and integrated application of safety management principles by both the State and SPs.

2.6 Although each SP has the autonomy to develop their own SMS in the context of their organization, it is recognized that the aviation community as a whole benefits when the integration of such information can provide a more complete picture. As such, there are requirements in Annex 19 for States to not only share and exchange safety information with SPs and other States as appropriate, but also to promote the establishment of safety information sharing and exchange networks amongst all stakeholders.

2.7 Airline operators and air navigation service providers (ANSPs) have collected a wealth of safety data and safety information in their respective SMS programs from both voluntary reporting and automated data capture systems.

2.8 States have recognized the value of aggregate, de-identified operator and ANSPs safety information to support their SSP activities, and a variety of civil aviation authorities (CAAs) have expressed interest in using this data to identify, mitigate and measure risks to aviation safety in their respective State. It has been stressed that they are not interested in the specific source of the information, but rather the identified trends.

2.9 Unfortunately, a number of CAAs have also identified their intent to mandate the collection of raw FDM data and other voluntary and internal reports, in their original form, which is highly sensitive to both the airline or ANSPs and its employees, and if applicable, their unions or associations.

2.10 IATA, IFALPA and IFATCA acknowledge that it is within a States authority to do so, however, they also contend that this approach appears to be contrary to the safety data and information protection principles in Annex 19, and against safety management principles as a whole. The context of the safety data and information must be understood in order to come to correct conclusions. That is why the first amendment to Annex 19 stresses the importance of information sharing networks.

2.11 A State (or any other organization) having safety data or information without the proper context, would not provide for an efficient and effective decision making process. In fact, significant risks such as unwarranted punitive action, erosion to just culture elements, decreased safety reporting, and breach of data protections including reporter and operator de-identification, may be introduced if safety data and information is misinterpreted due to the lack of context.

2.12 However, IATA, IFALPA and IFATCA, recognizing that this sensitive information is extremely valuable to an SMS or SSP in the interest of maintaining or improving aviation safety, fully support safety information sharing aligned with the SARPs and intent of Annex 19 - to States at a de-identified level, and predicated on established protocols to maintain the separation of individual air carrier and ANSP data.

3. CONCLUSION

3.1 Given that during the 39th ICAO Assembly IATA proposed that ICAO facilitate industry/State collaboration in establishing safety data collection and processing system (SDCPS) models that meet the needs of Annex 19 while also addressing IATA member concerns, and that the stated intention from some States to mandate the submission of FDM and other recognized highly sensitive safety data and information, IATA and its members and IFALPA continue to espouse the notion of industry / State collaboration models that:

- 1) meet the needs of a State SSP to manage safety at the State level;
- 2) address the concerns of airline operators on the use of information from voluntary reporting and auto data capture systems;
- 3) establish protocols to maintain the de-identification of individual service provider data; and
- 4) adhere to the protection principles as outlined in Annex 19.

4. ACTION BY THE CONFERENCE:

4.1 IATA, IFALPA and IFATCA invite the Conference to:

- a) acknowledge that significant risks may be introduced if safety data and safety information is misinterpreted due to the lack of context;
- b) reiterate the importance of collaborative information sharing models to assure context is understood, and that protection of safety data and safety information is applied as per Annex 19; and
- c) emphasize the following:
 - 1) that the protection of safety data, safety information and related sources is an important enabler of safety management, and that it is critical to ensure the continued availability of safety data and safety information;
 - 2) that the effective use of safety data and information is to maintain or improve safety through increased risk management, hazard identification, and mitigation is the objective, not just the exchange of the information; and
 - 3) that the use of safety data and safety information for purposes other than maintaining or improving safety, may ultimately inhibit the future availability of such data and information, and have a significant adverse effect on safety.

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