

# Twenty Ninth Meeting of the Informal South Pacific ATS Co-ordinating Group (ISPACG/29)

Santiago, Chile 4-6 March 2015

## Agenda Item [3.1]

#### SECOND ICAO HIGH-LEVEL SAFETY CONFERENCE

Presented by Presented by Federal Aviation Administration (FAA)

#### **SUMMARY**

This paper provides an update on the Second ICAO High-Level Safety Conference. The paper also provides conclusions and recommendations.

#### 1. INTRODUCTION

- 1.1 The International Civil Aviation Organization (ICAO) held the second High-Level Safety Conference (HLSC) from 2 to 5 February 2015 at ICAO Headquarters, in Montréal, Canada.
- 1.2 The participation of Directors General of Civil Aviation and strategic decision-makers will provide the international civil aviation community the opportunity to build consensus, obtain commitments and formulate recommendations deemed necessary for the effective and efficient progress of key aviation safety activities.
- 1.3 Overall, the HLSC will include various topics covering three major themes: review of the current aviation and safety situation, the future approach to manage aviation safety, and ways to facilitate increased regional cooperation. In particular, conference participants will be invited to discuss emerging safety issues, including the global tracking of aircraft and risks to civil aviation arising from conflict zones.
- 1.4 The second HLSC allows ICAO, States, and other aviation stakeholders the significant opportunity to acknowledge important advancements in aviation safety and efficiency, a continuation of safety goals since the first conference in 2010. Furthermore, the conference provides a venue to identify and prioritize the new technologies, procedures and standards necessary to mitigate risks in the system.
- 1.5 The last conference agreed that there is a need to further improve aviation safety, including the reduction of the number of accidents and fatalities, and to support safety management principles and processes. A collaborative approach among ICAO, States and the aviation industry resulted in the new Annex 19 dedicated to Safety



Management, and revisions on the Global Aviation Safety and Global Air Navigation Plans.

1.6 Safety is a shared responsibility, requiring strong partnerships and a holistic approach by all stakeholders to achieve results. Forums, such as the HLSC, provide an excellent opportunity for such stakeholders to discuss and prioritize an approach to the future management of civil aviation safety.

# 2. DISCUSSION

- 2.1 In the five years since the first HLSC, ICAO has developed the new Annex 19 which is a significant step forward in providing the necessary framework and direction for States to understand how to implement a State Safety Programme (SSP). As ICAO and States move towards implementing the requirements of Annex 19, it must be done with the understanding that the eight critical elements of safety oversight are the foundation of a States' functioning SSP. Compliance to the eight critical elements must be effectively sustained before and as States implement the SSP framework.
- 2.2 The collection and analysis of safety information is an integral part of understanding the causes of aircraft accidents and prevention of potential future accidents. The ability to effectively collect and disseminate safety information throughout the international community will help increase aviation safety worldwide. It is essential that a safety management system include tools for sharing information held by the civil aviation authority and the individual organizations within the aviation industry, promoting a government-industry partnership.
- 2.3 International civil air transportation continues to grow; 2014 aviation forecasting data from the Boeing Company predicts a 5.0 percent increase in aviation operations annually over the next 20 years. To support this growth, civil aviation authorities will need to manage oversight resources more efficiently and effectively than ever before.
- 2.4 The Regional Safety Group Asia/Pacific (RASG-APAC) was established further to the ICAO Council Directive (190<sup>th</sup> Session of the ICAO Council, 25 May 2010) and the direction by the Asia Pacific Directors General of Civil Aviation (DGCA) Conference held in New Caledonia in 2011.
- 2.5 The Main objectives of the RASG-APAC are to support the establishment and operation of performance-based safety system in the APAC region and the implementation of the Global Aviation Safety Plan (GASP). Its mission is to enhance civil aviation safety in the APAC Region by ensuring effective coordination and cooperation between all aviation stakeholders and monitoring progress in the implementation of the GASP.
- 2.6 At the RASG-APAC/4 meeting held in Hong Kong, China from 20 to 21 November 2014, the meeting endorsed the APAC regional priorities and targets for safety. The RASG-APAC endorsed version of the regional safety priorities and targets which includes the following five broad priority areas:

a) reduction in operational risks;



b) improvements in safety oversight and compliance;

c) consistent and effective safety management systems (SMS) and State safety programs (SSP);

- d) predictive risk management and advanced regulatory oversight; and
- e) enhanced aviation infrastructure.
- 2.7 RASG-APAC deliverables are:
- a) compilation of two APAC annual safety reports;

b) establishment of the APAC regional safety priorities and targets (in line with the GASP);

c) development of numerous safety tools to be used by States and industry, such as model regulations, model advisory circulars, guidance materials and training material to address controlled flight into terrain (CFIT), loss of control in flight (LOC-I) and runway safety matters;

d) establishment of the foreign air operator surveillance database, a web-based application for sharing ramp inspection data among RASG-APAC safety partners; and

e) in coordination with COSCAPs, hold safety seminars/workshops for States in the region aimed at providing implementation assistance on RASG initiated SEIs.

## 3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
  - a) Note the information provided

#### **Attachment A: Summary of Conclusions and Recommendations**



# ATTACHMNT A:

## 1. CONCLUSION 1/1

- 1.1 The conference agreed on the following conclusions:
- a) Progress made since the High-level Safety Conference held in 2010 (HLSC 2010:)
- 1) Significant progress was noted in implementing the recommendations of the HLSC 2010 and attaining the GASP objectives; and
- 2) Additional effort is needed to effectively implement the on-going initiatives of the HLSC 2010 and to fully achieve the GASP objectives;
- b) Supporting the activities of RASGs: [This proposed outcome will be further discussed and concluded under Topic 3.1 of the conference, effective and efficient regional collaborations.]
- c) Regulatory oversight for the effective implementation of PBN:
- 1) Given that the lack of proper regulatory oversight has contributed to the delay in implementing Assembly Resolution A37-11, priority should now be on areas where maximum safety benefits can be gained.

# 2. RECOMMENDATION 1/1

- 2.1 The conference agreed on the following recommendations:
- a) Progress made since the High-level Safety Conference held in 2010 (HLSC 2010):
- 1) ICAO, States and aviation safety partners should continue working on the on-going initiatives resulting from the recommendations of HLSC 2010;
- States should encourage air operators to effectively use SMS processes before implementing a Fatigue Risk Management System (FRMS) in order to gain optimum safety and efficiency of its benefits; and
- 3) ICAO should make available safety-related documentation in all ICAO languages using consistent terminology;
- b) Supporting the activities of RASGs: [The recommendations on this proposed outcome will be developed under Topic 3.1 of the conference, effective and efficient regional collaborations.]
- c) Regulatory oversight for the effective implementation of PBN:



- 1) States should expedite full implementation of PBN regulatory oversight by making full use of all available resources to improve the effectiveness of their PBN oversight function;
- 2) States should proceed with the implementation of Assembly Resolution A37-11 with emphasis on areas where maximum safety benefits can be gained;
- 3) ICAO should develop a clear overview of the different regulatory oversight requirements, functionalities and activities necessary for an effective PBN implementation.

## 2. CONCLUSION 1/2

2.1 The conference agreed on the following conclusions:

#### Global flight tracking

- a) Recent events, such as the accident to Flight AF447 and the disappearance of Flight MH370, have shown that there is a need for provisions requiring operators to determine the position of an aircraft at any time in any location;
- b) States, air navigation authorities and the industry should begin voluntary implementation of global tracking using available technologies as a matter of urgency;

#### Conflict zones

- c) The tragic loss of Flight MH17 highlights the necessity to provide accurate and timely information to States and airlines regarding risks to civil aviation arising from conflict zones as a matter of urgency;
- d) There is an urgent need to utilize and enhance existing mechanisms for the purpose of sharing critical information related to airspace use restrictions that are associated with conflict zones and to ensure robust risk assessments;
- e) States should ensure the safety of civil aircraft through civil military coordination as outlined in the ICAO circular *Civil / Military Cooperation in Air Traffic Management* (*Cir330*) and should update that Circular on a regular basis.
- f) ICAO should provide updated information on the progress and implementation of abovementioned subjects in a report to be presented at the 39th Session of the Assembly.

#### Public health

- g) The Ebola Virus Disease outbreak has demonstrated the ongoing value of the CAPSCA programme and there is a need to find resources to ensure its sustainability.
- h) States may utilize expertise already available within their regulatory authority to facilitate improved management of public health events that impact the aviation sector.



#### Extreme meteorological conditions

- i) ICAO should pursue its work in studying data and information from accident and incident investigations as well as data and information provided by aircraft manufacturers, linked to unusual/extreme weather events;
- j) ICAO, based on the study results, should evaluate the need for improved ICAO airworthiness, operations and detection equipment carriage related provisions in order to further mitigate changing meteorological risks and takes appropriate action; and

#### Duration of CVR recordings

- k) States should support the proposed amendments from the FLIRECP concerning extended CVR recording duration for newly manufactured large aeroplanes to 25 hours; and
- ICAO should ensure that this extended CVR recording duration is accompanied by the relevant safeguards regarding the possible use of CVRs, limiting it to the purposes of maintaining or improving aviation safety.

#### 3. RECOMMENDATION 1/2

3.1 The conference agreed on the following recommendations:

#### Global flight tracking

- a) ICAO should expeditiously finalize and use the Global Aeronautical Distress and Safety System (GADSS) for the implementation of normal, abnormal and distress flight tracking, search and rescue (SAR) activities and retrieval of cockpit voice recorders (CVRs) and flight data recorders (FDRs) data;
- b) ICAO should continue developing performance-based provisions for normal aircraft tracking, which provide industry with viable options, as a matter of urgency, and urge industry to start implementing global tracking, on a voluntary basis, through the use of available technologies;
- c) ICAO should lead a global aircraft tracking implementation initiative in a multinational context designed to demonstrate best use of equipment in use today and integrate the outcome into guidance material;
- d) ICAO should support regional SAR training exercises related to abnormal flight behaviour and share the outcomes with the international community;
- e) ICAO should review the interaction between Annex 12 Search and Rescue and Annex 13 Aircraft Accident and Incident Investigation and clarify the relevant provisions when an aircraft remains missing at the end of the search and rescue phase and the search continues to locate the aircraft for investigation purposes;



 f) ICAO should encourage States and the International Telecommunication Union (ITU) to discuss allocation requirements at the World Radio Communication Conference in 2015 (WRC 15) to provide the necessary spectrum allocations for global air traffic services surveillance as a matter of urgency;

#### Conflict zones

- g) ICAO and States should work to implement the strategy developed by the TF-RCZ as the basis for strengthening arrangements to address risk to civil aviation arising from conflict zones.
- h) ICAO should establish, as matter of urgency, a simple centralized web-based repository to make information available which supports the assessment of risks over or near conflict zones. The source of this information should be clearly identified in the repository
- i) ICAO should review relevant SARPs and guidance material on risk assessments for flights over or near conflict zones to support the highest level of safety to civil aviation;
- j) ICAO should task the Accident Investigation Panel (AIGP) to review relevant provisions in Annex 13 with due consideration to the following scenarios:
- 1) the State of Occurrence does not conduct an investigation called for in Annex 13 and does not intend to delegate the investigation to another State;
- 2) the Final Report is not issued within a reasonable timeframe;
- 3) extent of participation in an investigation of States that have suffered fatalities or serious injuries to their citizens;
- k) States should support the ICAO information exchange framework by making all relevant information on the risks associated with operations over or near conflict zones available, as a matter of urgency;
- ICAO should support States in ensuring the safety of civil aircraft through civil military coordination as outlined in the ICAO circular on Civil/Military Cooperation in Air Traffic Management (Cir 330) and should update that Circular on a regular basis

#### Public health

- m) ICAO should sustain the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) programme to assist States prepare for and respond rapidly to any new public health event;
- n) States should engage in supporting the CAPSCA programme and contribute to it financially and/or in kind;



- o) States should, where feasible, utilize expertise in the medical department of their regulatory authority, in addition to other public health experts, to improve public health event management and response in the aviation sector.
- p) ICAO should provide updated information on the progress and implementation of abovementioned subjects in a report to be presented at the 39th Session of the Assembly.

#### 2. CONCLUSION 2/1

2.1 The conference agreed on the following conclusions:

a) Strategies for managing aviation safety

1) A risk-based approach is an effective means for States to manage new and existing aviation activities;

2) Additional guidance material is needed for States to develop performance-based regulations; and

3) New or enhanced ICAO provisions, as well as collaboration between States, are required to ensure the safe integration of RPAS.

#### b) Implementing SSP

1) The implementation of the State safety oversight system and SSP should be monitored to determine the progress attained toward the GASP objectives;

2) Additional guidance and sharing of experiences are necessary for States to further develop and implement SSPs; and

3) SPIs are needed to enable States to monitor and measure performance.

c) Enhancing SSP provisions

1) The adoption of Annex 19 — *Safety Management* has facilitated the consolidation of overarching safety management Standards and Recommended Practices (SARPs) that will enable their further evolution; and

2) Enhancements to SSP provisions should support States' efforts to meet the GASP objectives.

#### 3. RECOMMENDATION 2/1

3.1 The conference agreed on the following recommendations:

a) Strategies for managing aviation safety

1) ICAO should assess the feasibility and benefits of expanding SMS applicability to additional aviation activities;

2) ICAO should establish a coordination mechanism to assist States in resolving safety concerns related to foreign aircraft operators;

3) ICAO should develop guidance material to facilitate the establishment of performance-based regulations; and



4) ICAO should expedite the development of provisions to be used by States to regulate RPAS operations within their airspace and to educate users regarding the risks associated with their operations.

#### b) Implementing SSP

1) States should use the ICAO SSP gap analysis tool to support the monitoring of SSP implementation;

2) ICAO should develop guidance and mechanisms for sharing best practices to support SSP implementation; and

3) ICAO should improve and harmonize the defined SPIs taking into account those currently in use;

#### c) Enhancing SSP provisions

1) ICAO should ensure that the eight critical elements remain visible and intact and that their role as the foundation of the SSP is emphasized and harmonize the ICAO safety data collection provisions.

#### 2. CONCLUSION 2/2

2.1 The conference agreed on the following conclusions:

a) Accident investigation authorities gather and generate records during the course of investigations instituted with the objective of determining causes and/or contributing factors of aviation accidents or incidents to prevent their recurrence. Safeguarding accident investigation authorities' continued access to essential information during the course of an investigation relies on States' ability to implement appropriate protection for accident and incident records;

b) Proactive mechanisms designed to manage aviation safety rely on the collection, analysis and exchange of safety information for the timely identification and subsequent mitigation of risks and hazards that may result in an accident or an incident. The success of this proactive approach to manage aviation safety depends on the appropriate protection of safety information and related sources to encourage meaningful reporting;

c) The protection of certain accident and incident records, other information collected for the purposes of maintaining or improving safety and its related sources is an enabler for safety improvement and should be introduced at the legislation level;

d) Multidisciplinary groups of experts have contributed towards the development of proposals to enhance ICAO provisions on the protection of certain accident and incident records and other information collected for the purposes of maintaining or improving safety and its related sources; and

e) Progress in ICAO's work to enhance the protection of certain accident and incident records and information collected for the purpose of maintaining or improving safety in addition to assistance to States in implementing these new protective frameworks is critical for the improvement of aviation safety;

f) Consistency and maturity on the proposals as well as clearly defining the types of information and sources to be protected is fundamental for the development and efficient implementation of new or enhanced provisions.

#### 3. **RECOMMENDATION 2/2**



3.1 The Conference agreed on the following recommendations:

a) That ICAO ensure meaningful progress towards the adoption of new and enhanced provisions on the protection of safety management information as well as accident and incident records, while ensuring maturity, consistency and clarity on the proposals;

b) That States undertake the necessary legal adjustments to efficiently implement new and enhanced protective frameworks to facilitate safety management and accident investigation activities; and

c) That ICAO support States in implementing new and enhanced provisions through a strategy comprised of supporting guidance material, tools and seminars tailored to the needs of each region aiming at building trust, cooperation and a common understanding among aviation safety professionals, accident investigation authorities, regulators, law enforcement officers and the judiciary in the context of an open reporting culture.

#### 2. CONCLUSION 2/3

- 2.1 The conference agreed on the following conclusions:
- a) The exchange of information is a fundamental tenet of a safe air transportation system and is acknowledged as an enabler to achieve the objectives of the Global Aviation Safety Plan (GASP);
- b) Safety initiatives rely on a clear understanding of how safety information is defined and protected;
- c) Appropriate tools, systems and legal frameworks need to be available to enable States and organizations to use the shared safety information;
- d) Further development of global safety initiatives and implementation strategies should be built on the collection, analysis and sharing of information between States and aviation stakeholders;
- e) A phased approach is essential for the development of the global information sharing framework; and
- f) Information collected through regional safety exchange mechanisms should be made available at a global level.

#### 3. RECOMMENDATION 2/3

- 3.1 The conference agreed on the following recommendations:
- a) Safety information sharing
- 1) that ICAO facilitate a phased approach towards the development of the global framework for the exchange of information pertaining to the identification of systemic safety issues and other types of information in the interest of safety;



- 2) that ICAO launch a study to assess the need to endorse the Universal Safety Oversight Audit Programme – Continuous Monitoring Approach (USOAPCMA) online framework to a more transparent data fusion centre that would complement the work conducted by ICAO and Member States through the USOAP-CMA, Electronic Filing of Differences (EFOD), Regional Aviation Safety Group (RASG) and other working groups;
- 3) that ICAO consider the development of a mechanism for the evaluation of the adherence to the Code of Conduct on the Sharing and Use of Safety Information;
- 4) that ICAO develop a Standard for the collection and sharing of operational safety data, as well as a standardized safety risk management methodology in order to promote harmonization of continuing airworthiness processes; and
- 5) that ICAO establish a database for safety recommendations of global concern and expedite appropriate actions to make it available on an appropriate ICAO website.

# 1. CONCLUSION 2/4

- 1.1 The conference agreed on the following conclusion:
- a) Updating the 2014 2016 GASP
- 1) Safety roadmap(s) will assist States and regions in the implementation of the GASP; and
- 2) The update of the GASP requires a collaborative effort of all stakeholders to promote its continuous and stable evolution.

## 2. RECOMMENDATION 2/4

- 2.1 The conference agreed on the following recommendation:
- a) Updating the 2014 2016 GASP
- 1) ICAO, in collaboration with States, RASGs, aviation safety partners and the industry, should develop safety roadmap(s) in support of the GASP; and
- 2) ICAO, in collaboration with States, RASGs, aviation safety partners and the industry, should develop methods to identify future safety objectives and priorities to update the GASP while taking into account the necessary continuity and stability of the strategic document.

#### 1. CONCLUSION 3/1

- 1.1 The conference agreed on the following conclusions:
- a) Regional Collaboration to Improve Safety in States



- Aviation safety partners including donor States, international organisations, industry and financial institutions are encouraged to support ICAO's efforts to assist States to improve aviation safety by enhancing regional coordination, cooperation and collaboration;
- 2) There is a need for ICAO to develop a resource mobilization strategy to enhance implementation assistance capacity;
- 3) It is encouraged that ICAO participate in the development of the United Nations Sustainable Development Goals; and
- 4) voluntary contributions to the Human Resources Development Fund (HRDF) are encouraged.
- b) Regional Safety Oversight Organizations (RSOOs)
- 1) A harmonized and common framework and cooperation between States, safety partners and donors is essential to facilitate the establishment and sustainable evolution of RSOOs; and
- 2) The role of ICAO is key in the provision of guidance, review and sharing of information and best practices on RSOOs, in order to eliminate inefficiencies and increase effectiveness, and support States with the global safety objectives.

# c) Certification and surveillance activities of Approved Maintenance Organizations (AMOs)

1) ICAO should, in collaboration with States and industry, develop an international framework and regional initiative to facilitate reducing duplication of certification and surveillance activities of AMOs.

## 2. RECOMMENDATION 3/1

- 2.1 The conference agreed on the following recommendations:
- a) Regional Collaboration to Improve Safety in States
- Aviation safety partners, including donor States, international organisations, industry and financial institutions, assist States to improve aviation safety by enhancing regional coordination, cooperation and collaboration under ICAO's safety policies, strategy, framework and mechanisms;
- 3) ICAO lead the coordination and facilitation for donors and partners on the provision of aviation safety implementation assistance in States;
- 4) ICAO consider establishing an aviation safety implementation assistance partners group, built upon the existing Safety Collaborative Assistance Network (SCAN), with the



objectives of assistance information sharing, collaboration, resource mobilisation, and agreeing on outcome indicators and targets;

- 5) ICAO develop a resource mobilization strategy and implementation plan to increase resources, assistance activities and implementation assistance capacity;
- 6) ICAO lead the alignment of and coordination between regional initiatives to improve safety, implement the GASP objectives, and achieve the regional safety targets, involving the RASGs, PIRGs, COSCAPs, RSOOs, RAIOs regional Civil Aviation Commissions (CACs) and Aviation Training Organisations (ATOs), avoiding duplication as well as gaps;
- 7) Each region to establish and enhance mechanisms for PIRG-RASG coordination and include this in the respective procedural handbooks/manuals;
- 8) States, International Organisations and industry increase their participation in and contributions to the ICAO and partner regional safety mechanisms;
- 9) States, International Organizations and industry continue their support to the activities of the RASGs by increasing their level of participation and contribution of resources, including technical experts, and promoting further implementation of RASG's safety initiatives.
- 10)ICAO participate in the development of the United Nations Sustainable Development Goals; and
- 11)States, international and regional organizations and industry increase contributions to the ICAO Voluntary Funds including the Safety Fund (SAFE) and Human Resources Development Fund (HRDF).
- *b)* Regional Safety Oversight Organizations (RSOOs) ICAO be provided voluntary in-kind contributions of resources for the work programme to support RSOOs by:
- Undertaking a study, possibly supported by the establishment of a working group, to consider ways to integrate functions and increase the powers of RSOOs in relation to the ICAO regional safety framework, possible sustainable funding mechanisms, mergers and agreements between RSOOs, evolve COSCAPs into RSOOs, and report the results to the 39th Session of the ICAO Assembly;
- 2) enhancing the guidance provided in ICAO Doc 9734, Part B *The Establishment and Management of a Regional Safety Oversight Organization*; and

c) Certification and surveillance activities of Approved Maintenance Organizations (AMOs)

ICAO be provided voluntary in-kind contributions of resources for the work programme to support States by undertaking a study, possibly supported by the establishment of a working group, to consider the development of a global framework and regional initiatives to reduce duplication of certification and surveillance activities of AMOs, and report the results to the 39th Session of the ICAO Assembly.