



WORKING PAPER

AIR NAVIGATION COMMISSION

AN Programme A2-SMS-SMS1: Safety management

**FINAL REVIEW OF A PROPOSAL FOR THE DEVELOPMENT OF
HARMONIZED PROVISIONS RELATING TO SAFETY
MANAGEMENT IN ANNEXES 1, 6, PARTS I AND III, 8, 11, 13 AND 14,
VOLUME I, IN LIGHT OF COMMENTS FROM STATES AND
INTERNATIONAL ORGANIZATIONS**

(Presented by the Director of the Air Navigation Bureau)

SUMMARY

This paper presents the results of a consultation with States and international organizations on a proposal for the amendments of Annexes 1, 6, Parts I and III, 8, 11, 13 and 14, Volume I, to harmonize provisions regarding safety management as a continuation of the harmonization effort initiated in 2005. As one result of the consultation, this paper includes a proposal to develop a new Annex dedicated to safety management. Action by the Commission is in paragraph 5.

COORDINATION

AGA, AIG, ATM, FLS, SOA

REFERENCES

AN-WP/8196	*Annex 8
*AN Min. 176-4	*Annex 11
*AN Min. 174-5	*Annex 13
*Annex 1	*Annex 14, Volume I
*Annex 6, Parts I and III	*State letter AN 12/51-07/74

This working paper relates to Strategic Objective A.

*Principal references

1. INTRODUCTION

1.1 On 25 October 2007, the Air Navigation Commission (AN Min. 176-4) considered a proposal for the amendment of Annex 1 — *Personnel Licensing*, Annex 6 — *Operation of Aircraft*, Part I — *International Commercial Air Transport — Aeroplanes* and Part III — *International Operations — Helicopters*, Annex 8 — *Airworthiness of Aircraft*, Annex 11 — *Air Traffic Services*, Annex 13 — *Aircraft Accident and Incident Investigation*, and Annex 14 — *Aerodromes*, Volume I — *Aerodrome Design and Operation*, to harmonize provisions regarding safety management as a continuation of the harmonization effort initiated in 2005. The Commission agreed that the proposed amendments, as modified by the discussion, be transmitted to Contracting States and appropriate international organizations for comments.

1.2 Accordingly, State letter AN 12/51-07/74, dated 7 December 2007, was sent to States and selected international organizations with a due date for replies of 31 March 2008.

2. SUMMARY OF REPLIES

2.1 By 31 March 2008, thirty-eight replies had been received from Contracting States, including twenty-two Council Member States, and eight international organizations. By 30 May 2008, sixty-nine replies had been received from sixty Contracting States and nine international organizations. A summary of replies is in Appendix A.

3. NATURE AND SCOPE OF THE REPLIES

3.1 The replies indicated general support for the amendments proposed by State letter AN 12/51-07/74. Of the sixty-nine replies received, thirty-seven agreed without comments and thirty-two agreed with comments. One reply disagreed with comments to the proposal regarding Annex 1, one reply disagreed with comments to the proposal regarding Annex 6, Parts I and III, two replies disagreed with comments to the proposal regarding Annex 8, three replies disagreed with comments to the proposal regarding Annex 13, and one reply disagreed with comments to the proposal regarding Annex 14, Volume I.

3.2 Substantive comments received from States and international organizations refer to re-evaluating the need to develop a new Annex dedicated to safety processes as the natural place-holder for the safety management provisions, the proposal on Annex 8 as a whole, the need to clarify the notion of acceptable levels of safety, the role of regional organizations with regulatory or oversight responsibilities and the proposed applicability dates of the safety management provisions. The comments and proposals for action by the Secretariat are in Appendix B. Nevertheless, given the potential significance of the re-evaluation of the need to develop a new Annex dedicated to safety processes as the natural place-holder of the safety management provisions, the Secretariat's comments and proposal for action on the subject are included hereunder.

3.3 The Commission had considered the need to develop a new Annex dedicated to safety processes as a consequence of Recommendations 2.2 b) and 3.1 h) of the Directors General of Civil Aviation Conference on a Global Strategy for Aviation Safety (DGCA/06). Specifically, the Commission considered a recommendation that "ICAO should study further harmonization of safety management requirements, and consider the development of a new Annex dedicated to safety processes, including

appropriate provisions on safety oversight, safety assessment and safety management” (AN-WP/8196, AN Min. 174-5 refer). At the conclusion of its deliberations, the Commission agreed, by inviting action by the Council, that [at the time] “there is insufficient basis for ICAO to justify the development of a new Annex dedicated to safety processes.” Nevertheless, the Commission noted its intent “to continue its efforts on further harmonization of the safety management requirements and its plans to develop an explanatory document concerning ICAO provisions related to safety processes”. The Commission’s decision not to go ahead with the development of a new Annex at the time was essentially based on two reasons: the effort required to address what was perceived as an editorial issue would be considerable with a limited return value, and the fact that safety-related Standards and Recommended Practices (SARPs) in Annexes other than the proposed new Annex could be perceived as less important for safety. A third reason also discussed by the Commission was that specialists in one field of activity have only to consult a single ICAO Annex to assess which SARPs and safety provisions are applicable to their operations.

3.4 The replies by States to the consultation under State letter AN 12/51-07/74, as well as developments in ICAO, States and industry safety management activities, bring in new elements to the decision process, and provide reasonable grounds to consider revisiting the need to develop a new Annex dedicated to safety processes.

3.5 First, it should be recalled that a gradual, developmental approach has been followed to incorporate harmonized safety management requirements in different Annexes. This approach has, unintentionally, turned into a piecemeal approach, with the downside of creating some confusion among States. This is clearly articulated in one response to State letter AN 12/51-07/74: “The method used by ICAO to introduce Safety Management Systems (SMS) into the different Annexes using essentially the same harmonized text, but with some differences between the Annexes, has made the implementation process by States extremely difficult. States are now faced with many complex changes to legislation with different applicability dates and detail requirements.” This comment is supported by feedback from States received directly by the Secretariat through the programme of SMS training courses.

3.6 Second, the two main concerns of the Commission, discussed in paragraph 3.3, when deciding not to go ahead with the development of a new Annex dedicated to safety processes, have ceased to exist, or at least, have been substantially modified. The Secretariat believes that the effort required to develop a new Annex that would consolidate all the SARPs related to safety management is now justified based on the discussion in paragraph 3.5 above. The Secretariat also believes that, under the light of recent safety management requirements, the perspective that safety-related SARPs in Annexes other than the new Annex could be perceived as less important for safety, merits re-consideration. A new Annex dedicated to safety processes would not contain safety SARPs as such, which may be contained in other Annexes. It would contain SARPs that are necessary to provide uniformity and standardization to the processes underlying the management of safety by States and service providers. In this respect, it would be no different than other Annexes that contain SARPs that are necessary to provide uniformity and standardization to the processes underlying the management of air traffic services, the management of meteorological services, the management of aeronautical information services, the management of accident and serious incident investigations, and so forth.

3.7 Third, the perspective that specialists in one field of activity have only to consult a single ICAO Annex to assess which SARPs and safety provisions are applicable to their operations is now open to question. One vital component of the safety management requirements, the proposed ICAO State Safety Programme (SSP) framework, is contained in Annex 11 and cross-referenced to in other Annexes by means of notes. Guidance on acceptable levels of safety is contained in Annex 11 and cross-referenced to in other Annexes by means of notes. Guidance on the protection of sources of safety information is

contained in Annex 13 and cross-referenced to in other Annexes by means of notes. It is likely that, should the present approach be maintained, additional cross-referencing by means of notes will be necessary, as safety management requirements evolve. Specialists need now, and they will probably need more, to refer to more than one single Annex to assess which SARPs and safety provisions are applicable to their operations. Furthermore, it is not infrequent that the status of notes becomes a source of confusion among users of Annexes, which might suggest that there are merits in reconsidering an implementation strategy partly-based upon note cross-referencing.

3.8 The Secretariat believes there is a fourth element to be considered when reassessing the need to develop a new Annex dedicated to safety processes: the potential application of a continuous monitoring approach for the ICAO Universal Safety Oversight Programme (USOAP) beyond 2010. There is a fundamental partnership between the Air Navigation Bureau (ANB) safety management activities and the USOAP under a continuous monitoring approach, an approach which will naturally be based in safety risk management. The Secretariat believes that a new Annex dedicated to safety process would be the logical place-holder for SARPs that might be necessary to provide uniformity and standardization to the processes underlying the continuous oversight of the management of safety by States.

3.9 The Secretariat is thus proposing, for the Commission's consideration, the need to re-evaluate the development of a new Annex dedicated to safety processes. The proposed title for such Annex would be "Safety Management". It would contain SARPs that are necessary to provide uniformity and standardization to the processes underlying the management of safety by States and service providers, and to the processes underlying the continuous oversight of the management of safety by States. The proposed Annex on Safety Management is envisioned as a document compact in its contents. In general terms, the contents of the proposed Annex on Safety Management would initially include existing requirements currently spread out in other Annexes, and it would be extended to encompass further requirements as developments dictate. Thus, only in order to provide a general picture of situation and without pre-empting further discussions, the Secretariat submits to the Commission that the initial contents of the proposed Annex on Safety Management could include, but would not necessarily be not limited to:

- a) the harmonized safety management SARPs;
- b) the State Safety Programme (SSP) framework;
- c) the Safety Management Systems (SMS) framework;
- d) the phased SMS implementation;
- e) Annex 6, Part I, Appendix 5, *Safety Oversight of Operators*, modified as required;
- f) Annex 6, Part III, Section II, Appendix 2, *Safety Oversight of Operators*, modified as required;
- g) Annex 6, Part I, Attachment H, *Flight Safety Documents System*, modified as required;
- h) Annex 6, Part III, Attachment G, *Flight Safety Documents System*, modified as required;

- i) Annex 11, Attachment E, *Acceptable levels of safety*, as modified by action in response to the present consultation;
- j) Annex 13, Chapter 8, *Accident Prevention Measures*, as modified by action in response to the present consultation; and
- k) Annex 13, Attachment E, *Legal Guidance for the Protection of Information from Safety Data Collection and Processing Systems*, modified as required.

3.10 The development of the proposed Annex on Safety Management will consume a certain amount of time and consideration must be given to the importance and safety-sensitive nature of the proposed amendment to Annexes 1, 6, Parts I and III, 8 (if required), 11, 13 and 14, Volume I, currently underway. Therefore, should the Commission agree to instruct the Secretariat to develop a proposal for a new Annex on Safety Management, the Secretariat believes that, in order to close the time gap, the present proposal of amendment to Annexes 1, 6, 8 (if required), 11, 13 and 14, as modified by action decided by the Commission, should continue as scheduled.

4. **APPLICABILITY DATES**

4.1 An applicability date of 19 November 2009 is envisaged for Annex 6, Parts I and Part III, Annex 11, Annex 13 and Annex 14, Volume I, as part of Amendments 33, 14, 47, 12 and 10, respectively. An applicability date of 18 November 2010 is envisaged for Annex 1, as part of Amendment 170. If required, an applicability date of March 2013 is envisaged for Annex 8, as part of Amendment 103.

5. **ACTION BY THE AIR NAVIGATION COMMISSION**

5.1 The Air Navigation Commission is invited to:

- a) note the summary of replies in Appendix A;
 - b) consider the material in Appendix B, and decide on the action to be taken on all matters raised therein;
 - c) agree that the proposed amendments to Annex 6, Parts I and III, Annex 11, Annex 13 and Annex 14, Volume I should become applicable on 19 November 2009;
 - d) agree that the proposed amendment to Annex 1 should become applicable on 18 November 2010;
 - e) agree in principle to, and instruct the Secretariat on the development of a proposal for a new Annex on Safety Management; and
 - f) instruct the Secretary regarding the preparation of the draft reports to Council.
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State/International Organization	Annex 1				Annex 6, Parts I and III				Annex 8				Annex 11				Annex 13				Annex 14, Vol. I			
	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP
Kenya																								
Kiribati																								
Kuwait	X				X				X				X			X				X				
Kyrgyzstan																								
Lao People's Democratic Republic																								
Latvia		X				X				X				X			X				X			
Lebanon																								
Lesotho																								
Liberia																								
Libyan Arab Jamahiriya																								
Lithuania																								
Luxembourg																								
Madagascar																								
Malawi																								
Malaysia	X				X				X				X			X				X				
Maldives																								
Mali																								
Malta																								
Marshall Islands																								
Mauritania																								
Mauritius	X				X				X				X			X				X				
Mexico																								
Micronesia (Federated States of)																								
Monaco																								
Mongolia																								
Montenegro																								
Morocco																								
Mozambique																								
Myanmar																								
Namibia																								
Nauru																								
Nepal	X				X				X				X			X				X				
Netherlands		X				X				X				X			X				X			
New Zealand		X				X				X				X			X				X			
Nicaragua																								
Niger	X				X				X				X			X				X				
Nigeria																								
Norway		X				X				X				X			X				X			
Oman																								
Pakistan	X				X				X				X			X				X				
Palau																								
Panama		X				X				X				X			X				X			
Papua New Guinea																								
Paraguay																								
Peru																								
Philippines	X				X				X				X			X				X				
Poland	X				X				X				X			X				X				
Portugal	X				X				X				X			X				X				
Qatar																								
Republic of Korea	X				X				X				X			X				X				

State/International Organization	Annex 1				Annex 6, Parts I and III				Annex 8				Annex 11				Annex 13				Annex 14, Vol. I			
	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP	A	AC	DC	NP
Viet Nam	X				X				X				X				X				X			
Yemen																								
Zambia																								
Zimbabwe																								
International Organizations																								
ACI	X				X				X				X				X					X		
ASECNA		X			X				X				X				X				X			
CANSO		X			X				X					X				X			X			
EASA																								
EUROCONTROL		X				X				X				X				X				X		
IATA	X				X				X				X				X				X			
IBAC	X					X			X				X				X				X			
ICCAIA		X				X				X				X				X				X		
IFALPA	X				X				X				X				X				X			
IFATCA	X				X				X				X				X				X			
TOTALS	45	23	1	-	48	20	1	-	46	20	2	1	49	19	1	-	48	17	3	1	51	17	1	-

APPENDIX B

COMMENTS OF STATES AND INTERNATIONAL ORGANIZATIONS IN RESPONSE TO STATE LETTER AN 12/51-07/74

Note.— All references are to the attachment to State letter AN 12/17-07/74 unless indicated otherwise.

REFERENCE: General comments

STATES' AND INTERNATIONAL ORGANIZATIONS' COMMENTS

Australia

The changes proposed to each annex contain a requirement for the State to establish the level of safety for the mandated SMS programs. This could become an international problem as it could result in each State having different requirements. Each State is likely to have different program principles, which may have negative consequences if the State's principles are in any way applied to persons or facilities in another State, which may have different principles.

All annexes have an appendix that contains the framework for safety management systems. Section 1.4 of that framework addresses the SMS implementation plan. There is no discussion in the proposed annex changes of what is meant by "*must interface with during the provision of service.*" This requirement for coordination perhaps should only encompass the functions of all its suppliers, be they suppliers of products or services.

In the proposals for each of Annexes 1, 6, and 8 there is a substantively identical requirement that State regulated organization's SMS programs continuously improve the overall level of safety. There is no indication of what the overall level of safety should apply to.

Austria

In order to support the concept of regional regulatory and safety oversight systems, any amendments to Annexes should make use of appropriate wording to acknowledge the role of regional organizations with regulatory or oversight responsibilities in the execution of certain elements of the Safety Management System and Safety Programme. To that aim, clarity should be added to the text by rewording relevant phrases. Generic examples are provided which occur repeatedly throughout the Annexes. Therefore, Austria notifies to ICAO their "Disagreement with comments" (referring to Community legislation) on the phraseology used regarding obligations to States, as it does not support the concept of regional regulatory and safety oversight systems.

The applicability dates proposed by ICAO may not be sufficient to allow stakeholders adequate time for implementation. A common applicability date of November 2011 would ensure a greater level of compliance.

Brazil

Although Brazil agrees with the framework proposal of a safety program, my Government understands that its inclusion as Attachment F to the Annex 11 might not be convenient. Considering that the implementation of such programs is an attribution of each State, Brazil understands that this structure should appear in Annex 13, since it is of all Annexes, the only one which refers exclusively to States.

The acronym CAA (Civil Aviation Administration) refers to a specific title which does not exist,

necessarily, in all States, or does exist with different attributions and competences. The manual of SMS (DOC 9859), when establishing the responsibilities of the State regarding SMS, explicitly says that “CAA” should be understood as the authority with competence to act in the concerned area. Therefore, the Brazilian Government suggests that the definition of CAA should be introduced in each of the Annexes in which the subject of SMS is dealt with.

Colombia

(Note.— See appropriate partial language version of this AN-WP for original text.)

Our State suggests the creation of a separate annex on safety, rather than the recommended inclusion of an SMS-related appendix to various Annexes. We also propose that the SMS extend the scope of its application to other services or sectors which directly or indirectly affect the safety of a State. On account of the above, we think that an annex on safety should be created in addition to Doc 9859. This annex should contain general guidelines regarding State compliance and regarding who is to be involved in the safety process.

We propose adding/changing the following, highlighted, to all the attachments:

Safety programme. *An integrated set of regulations and activities aimed at improving safety. The State, as the authority, shall develop the safety programme.*

Safety management system. *A systematic approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures. The service provider, whether a State organization, a private organization, or a joint venture, shall implement the safety management system in accordance with the regulations created by the State for this purpose.*

1.5 Coordination of emergency response planning

The [service provider] shall develop, coordinate and maintain an emergency response plan that, with the application of the various organizational contingencies, ensures stable performance which is acceptable in terms of safety, and ensures orderly and efficient transition until normal operations are resumed.”

Finland

Due to the European Community legislation it might be necessary in some circumstances to interpret “state” as “regional organisation” and “CAA” in the case of Europe as “EASA”. The European Community legislation on aviation safety is probably the furthest developed multinational safety programme after the Chicago Convention itself. When corresponding implementing rules are being applied in 2011 or 2012 at the latest the enforcement of the Basic Regulation and its implementing rules will form a developed multinational safety programme.

France

(Note.— See appropriate partial language version of this AN-WP for original text.)

The proposed amendment aims to extend and harmonize the SMS and SSP related provisions within the limited framework of Annexes 6, 11 and 14. We agree with the principle of this approach, which seeks to improve safety. Given the circumstances (in particular, with regard to the Annex 6 deadline of 1 January 2009), it would be necessary to move the application date to at least 1 January 2011.

The appendix entitled *Framework for Safety Management Systems (SMS)*, which is to be added to Annexes 1, 6 (Parts I and III), 8, 11 and 14, comprises guidance material which could hinder implementation suited to the size and complexity of the operators or States concerned. It thus seems vital

to replace this appendix with a supplement to the corresponding Annexes. If the proposal aims to standardize SMS and SSP implementation and to establish ad hoc regulations, States should have been involved in the development of this text in order to better understand the state of the art and the resulting constraints.

Vocabulary: The adjective “*redditionnel*” does not exist in French. Replace “*obligations redditionnels*” (“safety accountabilities”) in the French text with “*responsabilités en matière de sécurité*”.

Germany

(Secretariat’s note.— See comments by Austria above).

Greece

(Secretariat’s note.— See comments by Austria above).

Iceland

(Secretariat’s note.— See comments by Austria above).

Latvia

(Secretariat’s note.— See comments by Austria above).

Netherlands

(Secretariat’s note.— See comments by Austria above).

New Zealand

New Zealand agrees to the proposals set out in the letter. Indeed we hail them as a significant improvement to global operational safety.

Our particular concern relates to location of the proposed Attachment F – Framework for the State’s Safety Programme. We do not agree with the inclusion of this material in Annex 11. We do not feel that the inclusion of the material on a State’s Safety Programme properly belongs in Annex 11 – *Air Traffic Services*, as this material is fundamental to the safety system for all issues within a State. In light of the importance of this material we would strongly advise that it be elevated to a higher level document. We note that the eight elements of a safety oversight programme are set out in Appendix 5 to Annex 6 – *Operation of Aircraft, Part I – International Commercial Air Transport Operation*. With the advent of the Comprehensive Systems Approach round of audits under the Universal Safety Oversight Audit Programme, these elements are really primary obligations for ICAO-member States. Both Appendix 5 and the proposed Attachment F are significant documents that spell out the overarching obligations on a State, under which the more technical standards sit. There would be considerable merit to combining the State Safety Programme material with the Safety Oversight System elements and then issuing them in a document that sits above the Annexes. If it is considered that this material has to be located within one of the Annexes, we consider Annex 2 – *Rule of the Air*, may be a better location as this Annex contains general principles that apply to all aviation operations. This location would emphasize the fact these principles apply to the administration of a State’s aviation system within its airspace, and not just air navigation service providers.

We consider that there is an urgent need to adopt the material set out in the framework for a State Safety Programme. The proposed applicability date of 19 November 2009 for the adoption of a State Safety Programme should be brought forward.

The effect of implementing SMS in New Zealand has not been quantified in financial terms yet. We expect that our rule writing process will provide us with more specific information on this aspect. Our current view is that these will be material and the CAA anticipates deploying specific resources (both in terms of staff and money) to tackle the challenges. The transition to SMS represents an adaptation of existing processes, however, rather than a complete change of approach to safety management. As such we anticipate that this transition will only require our industry to expend resources to adapt existing work methods. We are not contemplating building systems and capacity that does not currently exist. Despite the costs, and the degree of effort on the part of both the CAA and industry, our assessment is that the transition to SMS will provide real benefits, and that these will significantly outweigh any implementation costs.

Norway

Neither this proposal nor ICAO Doc 9859 very precisely defines the terminology used. This is a source of potential uncertainty and lack of harmonisation with respect to what is expected and appropriate. It is proposed that ICAO defines the main terms used, applying as appropriate definitions from recognised standards in the field of risk management.

1.3 Appointment of key safety personnel, change to: *“The... organization shall identify an individual responsible for facilitating the implementation and maintenance of an effective SMS.”*

1.6 Documentation, change to: *“..... and the organization shall develop and maintain a safety management manual (SMM), which may be integrated with other management system documentation, to communicate its approach to safety throughout the organization.”*

It is also proposed to move the last statement of 2.2 to 1.1, as this is considered a fundamental part of management responsibility: *“The ... organization shall define those levels of management with authority to make decisions regarding acceptable safety risks.”*

2.2 Risk assessment and mitigation process, change to: *“2.2 Risk assessment and treatment process. The ... organization shall develop and maintain a formal risk assessment process that ensures analysis and evaluation of risk and that risk is treated to an acceptable level.”*

It is proposed to change the heading of 1.5 to *“Emergency response plan”* as that appears to more representative of the process [described in the text].

Safety culture is believed to be one of the more important aspects of Safety Management Systems. It is therefore proposed to include the following in 1.1: *“Management shall establish and maintain a safety culture throughout the organization.”*

Panama

(Note.— See appropriate partial language version of this AN-WP for original text.)

[Annex 1, Annex 6, Annex 8] It is suggested that the proposed applicability date be extended to 2012.

Russian Federation

(Note.— See appropriate partial language version of this AN-WP for original text.)

The Russian Federation understands that the proposed changes are dictated by ICAO's attempt to harmonize documents containing recommended standards and practices involving the accepted concept of flight safety management, and it supports ICAO's efforts. However, the Russian Federation is concerned that the proposed changes to Annexes 11 and 13, in their current wording, could lead to ambiguity in the understanding of the division of labour among the agencies responsible for conducting aircraft accident and incident investigations and the Civil Aviation Authority, and they could also do damage to the principle of independent investigation.

Singapore

Comments to the proposed SMS framework:

1.1 Describes requirements pertaining to the organisation's safety policy, Singapore proposes that the element be named "Safety Policy" (instead of "Management commitment and responsibility") for greater clarity.

Singapore recognises that management commitment and responsibility is essential for the success of SMS. Element 1.2 describes such responsibilities, and as such we suggest that element 1.2 be renamed "Management commitment and safety accountabilities", for greater clarity and in view of our proposed renaming of element 1.1.

1.3 Appointment of key safety personnel: A suggestion would be to delete this element as it should be covered by element 1.2 per comment above.

1.4 SMS implementation plan may be separately highlighted together with gap analysis in Doc 9859 as a once off typical organisational protocol for any new project or system introduction. A once off "implementation plan" cannot be regarded as a perpetual SMS element. It is also noted that there is no element on "safety objectives and goals" under this framework Component. It is suggested that element 1.4 be replaced with "Safety objectives and goals".

1.5 Coordination of emergency response planning may be better phrased as "Emergency Response Plan", since coordination is only one aspect of an ERP.

1.6 Documentation: We suggest renaming the element as "SMS Documentation" for better clarity.

3.1 Safety performance monitoring and measurement: under the framework component "Safety Assurance", it appears that the expectation for an internal SMS audit is not addressed. It is suggested that internal SMS audit be considered as a standalone element under this component.

3.1 Second sentence "*The safety reporting procedures... action would be considered*" addresses reporting systems rather than safety performance monitoring systems. Such reporting systems, which lead to the discovery of hazards within the organisation, appears to be of greater relevance to element 2.1 on Hazard Identification Process.

This element appears to have little mention of Acceptable Level of Safety (ALS). Singapore suggests to add an ALS clause to the element as follows: "*The approved organization shall develop and maintain the means... safety risk controls. There shall also be a set of identified safety performance indicators for the purpose of monitoring the minimum acceptable level of safety. These minimum ALS indicators shall be*

subject to acceptance by the CAA". We would suggest rewording this element 3.1 title to "Safety Performance and Acceptable Level of Safety".

3.3 Continuous improvement of the SMS is the main intent/outcome of SMS internal audit. We would suggest addressing "continuous improvement" together with the internal SMS audit element. We would suggest renaming this element as "Audit and Continuous Improvement of the SMS".

4. This component may be more appropriately termed "Safety Training and Communication" as reflected by its two element (4.1, 4.2) description. "Training" and "Communication" are more substantive technical terms than "Promotion".

Comments to proposed State Safety Programme Framework

1.1. CAA safety standards: The four current proposed elements under this component "State's safety policy and objectives" do not include the State's safety policy and objectives. A suggestion would be to include "State's safety policy and objectives" as element 1.1. Hence, there will be five elements under this component.

1.3 Accident and incident investigation: "...blame on liability" should be "blame or liability".

Disagreement with comments: It is not clear whether the term "accident and incident investigation" refers strictly to investigation conducted pursuant to Annex 13 or whether it covers also investigation outside of the Annex 13 context. While the results of an investigation (analysis, safety recommendations) conducted pursuant to Annex 13 constitute a key contribution towards the identification of safety hazards that a CAA (which may be the CAA of the State of Occurrence, State of Registry, State of the Operator, State of Design, State of Manufacture, etc.) should take into account, the statement that the sole objective of the independent accident and incident investigation process is to *support the management of safety* in the State and not the apportioning of blame or liability (Italics added) is nevertheless not quite consistent with the statement enshrined in Annex 13 that the sole objective of an accident or incident investigation shall be the prevention of accidents and incidents. On the other hand, there appears to be no reason to limit the term "accident and incident investigation" strictly to Annex 13 investigation, since there are investigations by the State CAA and investigations by the service providers (whether or not required by the State CAA) whose results can be equally useful and important for the safety hazard identification function of the CAA. If the essence of the contribution of an investigation (whether pursuant to Annex 13 or not) is the identification and highlighting of safety hazards, then it would appear that paragraph 1.3, as it is, is not necessary, since the role of investigation can be subsumed under paragraph 3.2 on "Safety data collection, analysis and exchange".

4. State's safety promotion: This component title "State's safety promotion" may be more appropriately designated as "State's Safety Training and Communication" as reflected by its two element (4.1, 4.2) description. "Training" and "Communication" are more substantive technical terms than "Promotion".

In addition, as the State's safety Programme is a relatively new requirement, States will require some time to implement the provisions. Therefore, the Commission should consider a later applicability date than 19 Nov 2009 for the proposed provisions in Annex 11.

Sweden

Considering rulemaking activities by entities of the European Union, Sweden proposes a postponement of the date of applicability to November 2012 for Annexes 6, 11, 13 and 14.

1.6 [proposed ICAO SMS framework], since [such] an organisation usually has a quality management system in place, which in fact is a management system with focus on flight safety, Sweden proposes the following change: *"...shall develop and maintain a safety management manual (SMM), which can be integrated in existing management manuals, to communicate its approach to safety throughout the organization."*

3.1 [proposed ICAO SMS framework], because of the difficulties in describing the conditions under which immunity from disciplinary action would be considered Sweden proposes the following change:... *"The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable. The prime objective is prevention of accidents and incidents and the creation of a non punitive environment."*

In the proposed changes, the [proposed ICAO SSP] framework is placed in Attachment F to Annex 11. The framework is then made applicable for all the other Annexes by reference to Annex 11 Attachment F. For the sake of availability and relation to each area and due to high subscription costs for organisations/operators regarding ICAO publications, Sweden proposes that the framework for SSP is attached to each Annex instead of being made applicable through a reference to Annex 11.

According to the proposal *"Guidance on safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E to Annex 11."* For clarity, Sweden proposes that the text is changed as follows: *"Guidance on safety programmes and on defining acceptable levels of safety is contained in the Safety Management Manual (SMM) (Doc 9859)."*

General comment regarding EC legislation: as a result of the Swedish membership in the European Union Sweden will only be able to implement the proposed changes to the Annexes to the extent that they concur with the European legislation.

United Kingdom

The gradual move to a performance-based rather than compliance-based regulatory approach is a major and welcomed transition for States/Service Providers but it raises many implementation issues. The method used by ICAO to introduce SMS into the different Annexes using essentially the same harmonised text, but with some differences between the Annexes, has made the implementation process by States extremely difficult. It is therefore regrettable that ICAO has not adopted a more coordinated approach to the introduction of SMS. The UK has long believed that the introduction of safety oversight provisions (i.e. a State's Safety Programme, the concept of an acceptable level of safety and SMS) would have been much better coordinated if there had been a new Annex dedicated to Safety Oversight. This would have avoided the excessive duplication and complexity of similar text in six different Annexes and would have simplified the State's task of implementing the basic ICAO Standard.

The typical text of an ICAO Standard concerning SMS (from a State regulators point of view) is too vague because it does not specify what is precisely required by ICAO on the date of applicability. The lack of clarity for 'implement' in Standards has meant that States will have difficulty implementing Standards in a consistent and timely manner. For Standards that will take States/Service Providers a long time to implement (such as SMS and other Standards such as Language Proficiency), ICAO should help States by outlining a phased implementation plan in an Appendix to an Annex. The proposals to amend Annex 6 include a new Appendix 6 to the Annex that, in 1.4, refers to an 'SMS implementation plan'. Unfortunately, this provides little information on implementation. We also understand that the Safety Management Manual (SMM), when updated in mid 2008, will give guidance on implementation. Unfortunately, this is too late for States, such as the UK, that is planning to meet the 1 January 2009 deadline. Perhaps the meaning of 'implement' in the SMS Standard should be clarified the Secretariat by

consulting the ICAO USOAP teams on what they expect from a State to show compliance when they are audited. Indeed, as the focus in ICAO is now more on implementation, the USOAP teams should have an essential role to play in the development of future ICAO Standards.

To conclude, States have a difficult job to comply with complex amendments. ICAO could simplify implementation by consolidating all SMS Standards into a single Safety Oversight Annex. ICAO could also provide an outline of a phased implementation plan to be included in an Appendix to the Standard. This would simply define the three phases of implementation, as well as a realistic timescale.

In paragraph 13 of SL07/74, it suggests that the applicability date of 1 January 2009 is to be changed to 19 November 2009. On further investigation through the UK office at ICAO it was discovered that this was not the original intent. However, we believe that this has resulted in considerable confusion amongst some States. It is regrettable that the Secretariat has generated confusion through the SL.

It will be recalled that ICAO decided four years ago that the Annex 6 SMS Standard for air operators should give States three years to comply by 1 January 2009. It is now probable that many States will not meet the 1 January 2009 deadline. It therefore appears that the goal of the ANC/Secretariat, to give States/Service Providers reasonable time to implement SMS, has failed. However, this situation should not be used to justify the extension of the current applicability date by another 3 years to 1 January 2012. If this action was taken, it would simply allow States to further delay action until near to 2012, at which time they may again call for a further extension. ICAO should demonstrate regulatory resolve by taking great care to set realistic applicability dates in the first place and to clearly define what ICAO requires to be achieved by States on the defined applicability date. A possible solution, taking account of our earlier comments above on implementation, would be for ICAO to retain 1 January 2009 for air operators, but for this date to be the time when Service Providers have been required by the State to have an approved implementation plan. Beyond this, ICAO, through States, could require Service Providers to have fully implemented SMS by 1 January 2012. ICAO should recognise that many States have worked hard to meet the compliance date of 1 January 2009. To change applicability dates now would undermine the good work done by many States. Those States that do not comply, should simply file differences, as required under Article 38 of the Chicago Convention.

United States

The changes in ICAO SMS requirements to include requirements for the State safety programme and additional clarity and harmonization of SMS requirements are a welcome addition to the evolution of the SMS concept. Our analysis of the process of rulemaking, development and implementation of new internal processes, training, industry outreach, and development and distribution of guidance material will require more time than is allocated in the present proposal if the necessary care is to be observed in these developments. We propose a 2010 implementation date for the State safety programme and a 2012 implementation date for service provider SMS regulations. Even if the Commission does not change the due date for all provisions, it should consider changing the provisions in Annex 1 and Annex 8. The Annex 8 applicability date should be revised to be no earlier than 2012.

Additional clarity is needed regarding what is expected for “implementation” of requirements. A phased implementation of SMS on the part of service providers is endorsed by ICAO. However, common practice in USOAP audits is to verify compliance with requirements through visits to CAA field offices and service provider sites. This raises the question as to what sort of objective evidence will be accepted in ICAO USOAP audits as verification that “implementation” is taking place during the period between promulgation of SMS regulations and final implementation dates contained therein.

Provide additional amplification/discussion regarding the intent of the term “accountability.” The concern

from some members of our industry groups has been over the possible interpretation of the term “accountability” to imply concepts of blame or personal liability.

Provide a definition of the term “state concerned.” There are several places where the phrase, “State concerned” is used. This needs to be better defined in the context of when more than one State may be involved.

Provide more clarity of the intent of the term “overall level of safety”. The term, “overall level of safety” is ambiguous. Suggest changing to, “aims to make continuous improvement in all safety processes, consistent with the level(s) of safety defined by the State concerned.”

Where possible, measurement and assessment of safety performance should stress the use of leading indicators. Suggest that measures be drawn from the following areas: system-level outcome measures (e.g. traditional system-level accident/incident measures), measures of system behaviors (e.g. assessment of management effectiveness across the critical functional areas of the framework), agency (CAA) activities (these should be targeted toward risk as noted in element 3.3 of the State Safety Programme as well as correlated with their effectiveness in influencing pro-safety behaviors on the part of service providers) and resource utilization.

Service Provider SMS Framework

Introduction, include the risk the organization introduces into the aviation system as a parameter in establishing/evaluating the level of implementation. The section could also include size of organization and complexity as examples.

1.1, suggest changing the second sentence to “...include a clear statement about the provision of the necessary ~~human and financial~~ resources for its implementation...” Current wording unnecessarily limits the statement as written. Resources may include technology; a more general statement is adequate.

1.2, consider changing the second sentence to “The organization shall also identify responsibility and accountability of ~~senior~~ management and employees with respect to safety performance”, and change the element title to, “Safety Responsibilities”. Element 1.2 in the service provider SMS framework establishes requirements of safety accountabilities of managers. While we support this idea, we suggest that it does not go far enough. Suggest that this discussion be expanded beyond management to include all employees.

1.4, suggest be titled simply “Planning” and that, in addition to requirements for implementation planning, it should also include requirements for short- and long-term planning and setting of objectives throughout the life cycle of the organization or activity. The framework should establish the processes/functions necessary, not the artefacts of those processes.

1.4, the term "organization's safety needs" should be defined, or the term, "safety objectives" should be used instead.

1.4, decouple the requirement for “...coordination between the SMS of the operator/approved maintenance organization and the SMS of other organizations...” from implementation planning. In addition, the term “coordination” needs clarification in this context. The important aspect from a safety point of view is that hazards are not identified in one SMS and ignored because they are “owned” by another organization. Interoperability encompasses the organization's SMS communication of hazards identified by the SMS of the organization to the SMS of other organizations that need this information, including the authority with oversight responsibility.

1.5, define the term "emergency response".

1.6, delete the sentence, "As part of the SMS documentation, the operator shall develop and maintain a safety management manual ..."). The framework should establish the processes/functions necessary, not the artefacts of those processes. Therefore, we suggest simply stating that the SMS must be documented, rather than producing a manual.

2.1, change to: "The organization shall develop and maintain a formal risk management process that ensures that hazards are identified, and the risk associated with the hazards are analyzed (in terms of probability and severity of occurrence), assessed (in terms of tolerability), and controlled to an acceptable level." Acting on and generating feedback about hazards in operations, based on a combination of reactive, proactive and predictive methods of safety data collection, is ambiguous.

2.2, clarify the definition of tolerability and its relationship to the acceptable level of safety. There is no mention in regards to the relationship of tolerability to the acceptable level of safety.

3.1, move the second sentence to Component 1, *Safety Policy*. The last sentence in 3.1 in the service provider SMS framework should be in the Safety Policy, rather than the Safety assurance section.

3.2, remove the phrase, "to describe arrangements", since the objective is to ensure that the change is safe.

4, address safety culture under Component 4, *Safety Promotion*. Note that the safety promotion section of the State's safety programme includes a focus on a "positive organizational culture".

State's Safety Programme Framework

Consider an alternative method of incorporating the content of Appendix F into Annexes 1, 6, 8, 11, 13, and 14. Since Attachment F provides overall ICAO requirements for State Safety programmes, it should not be added as an attachment to a single ICAO Annex. Given the proposed wide application of Safety programme requirements to a State, ICAO should consider placing this information in a separate location or a separate document, or including the language in an attachment to each of the affected Annexes.

Incorporate the 8 critical elements of the USOAP into the State safety programme framework. We are pleased with the general orientation of the State safety programme as a more comprehensive system based on risk management and safety assurance. To this end, we recommend that the safety programme framework and its associated description incorporate the critical elements of oversight, including explicit mapping of these elements into their respective elements of the State safety programme framework.

Introduction, change the introductory paragraph to read "...four components and ~~ten~~ eleven elements ...".

1.2, change to, "...include a clear statement about the provision of the necessary ~~human and financial~~ resources for its implementation..."

Include more of the discussion in paragraphs 8.1 and 8.2 of the State letter into elements 1.1, 2.1, and 3.1 of the State safety programme framework.

1.1 and 2.1, in the State's safety programme and their associated measures should stress management effectiveness, rather than total reliance on traditional outcome measures such as accident and incident rates. While in-depth coverage of this topic may best be left for the Safety Management Manual (SMM), recommend that the element at least capture the concept of requirements and measures based more on assessment of management effectiveness than on after-the-fact outcomes.

1.4, change to, "The State shall promulgate an enforcement policy that specifically addresses how the State leverages the service provider safety management system (SMS)." The requirements in 1.4 in the State's safety programme framework are too detailed for the appendix. Any additional detail could be covered in the SMM, Oversight Manual, or other guidance materials.

2.1, consider changing the title of element 2.1 to "State's role in safety risk management" and refocusing the requirements. The State identifies hazards and establishes safety risk controls that set boundaries on the system and promulgate requirements through regulations for service providers to manage safety risk through their SMS.

2.2, increase the flexibility of this requirement by promoting that the State defines acceptable levels of safety risk and agrees to (rather than approves) acceptable levels of safety. Also, remove the reference to resources, as well as the requirement for multiple safety indicators and performance targets. We do not agree that resources should be a factor. In addition, these requirements are too detailed for this appendix. Finally, the requirement that "the agreed acceptable levels of safety are expressed by multiple safety performance indicators and safety performance targets, never by a single one, as well as by safety requirements" is unnecessarily limiting. It may be possible to use one indicator for a particular service provider.

Components 2 and 3, change from "operational hazards" to "hazards". The term "operational hazards" could be construed as a limiting statement as written if "operational" is taken to mean the operation of the airplane as opposed to the design and manufacture of the airplane. Therefore, in this context, additional hazards may be applicable beyond operational hazards, and a more general term could be used.

3.1, reconsider the use of the term "oversight". This element seems to apply a narrower context to the term than is applied in ICAO Doc. 9734 (Safety Oversight Manual). 3.1 seems to be more limited than the complete scope of the critical elements as defined in ICAO's oversight manual.

Component 3, define or distinguish between audits, surveys, and inspections in 3.1 and 3.3 of the State's safety programme.

3.2, address the State's need to gather and analyze data at the individual service provider level, as well as at the aggregate level.

4.1 and 4.2, change the first sentence of each of the elements of component 4 to read "foster ...two-way communication" from "provide ...two way communication".

4.2, change "services providers" to "service providers". Also delete the reference to "same attention to results as financial management."

Introduction, address the need for coordination by multiple authorities in order to implement a State's safety programme: "The framework consists of four components and ten elements, outlined hereunder. The implementation of State's safety programme by a State shall be commensurate with the size and the complexity of the services provided, and may require the coordination of multiple authorities within a State responsible for individual element functions."

1.3 Accident and Incident Investigation, clarify the position and responsibilities of the independent accident investigation authority with regard to the aeronautical authority in a State safety program: "...on liability. In the management of a State safety programme, the State shall maintain the independence of the accident and incident investigation authority with regard to the oversight of the CAA functions as service provider."

Both the Service Provider SMS Framework and the State's Safety Programme Framework

Component 2, add system description/analysis to Component 2, *Safety Risk Management*, of both the State safety programme and the service provider SMS frameworks. This analysis is a fundamental process wherein the organization gains a fundamental understanding of its systems and operational environments (including interfaces with other interrelated systems).

EUROCONTROL

ICAO is to be commended for introducing a large number of aspects of State's safety programmes plus the framework for implementing and maintaining an organisation's SMS into the relevant Annexes.

While – from the EUROCONTROL perspective – the overall impact of the proposed amendments may be limited (since all comparable provisions of the EUROCONTROL Safety Regulations Requirements (ESARRs), the Common Requirements and associated elements of the Single European Sky (SES) Legislation are mandatory to EUROCONTROL and EU States, it would nevertheless appear that ICAO could face notification in due time of a fair amount of differences vs. the aforesaid set of regulations. In that respect, the attention of the European regulators should definitely be drawn to this prospect (if not already done so).

The above notwithstanding, it will be necessary to undertake a thorough mapping of the eventual amendments to the ICAO Annexes vs. the SMS-related European regulations so as to fully appreciate the differences. This is especially important in view of, notably, the future accession of States to the European Union (EU), EUROCONTROL or both.

ICCAIA

It is considered that the [safety management] proposals should also address the protection of SMS data, consistent with ICAO position that the protection of data is essential for SMS to work efficiently. The principles under which the confidentiality of the data gathered by the State will be maintained should therefore be clarified.

No indication is provided on the meaning of “must interface with during the provision of service.” This requirement for coordination should therefore be removed from each appendix and/or be replaced with a requirement focussing on the taking into account the organisation's suppliers only.

The proposed date of 18 November 2010 appears to be premature for the implementation of the provisions in Annex 8. ICCAIA would recommend that the proposed implementation date for Annex 8 provisions be postponed so as not to be earlier than 3 years after the entry into force of these new ICAO requirements.

SECRETARIAT'S COMMENTS

The comment by **Australia** regarding the potential for differences in acceptable levels of safety among States is noted. Similar comments were made by **ICCAIA** under Annex 8. There appears to be a misunderstanding regarding the notion of acceptable levels of safety, as proposed. Firstly, there seems to be a tendency to consider acceptable levels of safety as *safety measurement*, i.e., the quantification of *high-level outcomes* or *high-consequence events*, such as accident and/or serious incident rates; or the quantification of *high-level State functions*, such as the development of primary aviation legislation or specific operating regulations, regulatory compliance or its absence thereof, and so forth. Secondly, there

is the tendency to view acceptable levels of safety as *national* indicator(s) of overall State safety. Neither of these two views reflects the notion of acceptable levels of safety as proposed. The notion of acceptable levels of safety refers to *safety performance measurement*, i.e., the quantification of low-level *process* indicators that provide a measure of the actual performance of an *individual* SSP or an *individual* SMS, beyond accident rates and regulatory compliance. It involves agreement about, and continuous monitoring and measurement of selected activities undertaken by an organization during provision of services. In order to achieve measurement, it encompasses quantifiable short-term objectives (safety performance indicators), and mid- and long-term objectives (safety performance targets). Since the safety objectives of an SSP or an SMS are context-specific, it is to be expected that acceptable levels of safety be different among different SSPs and SMSs. In line with this notion, the collective establishment of acceptable levels of safety, be it at regional or multi-State level, would be technically inappropriate, since it would not provide a measure of performance of an individual SSP or SMS. The subject is discussed and guidance contained in Chapter 6 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859). However, an adjustment to existing provisions on acceptable levels of safety, including Attachment E to Annex 11 is proposed.

The Secretariat agrees with the comment by **Australia** that the requirement for SMS coordination under element 1.4 of the proposed ICAO SMS framework should be limited to coordination with the organization's suppliers. Similar comments were made by **United States** and **ICCAIA, CANSO** under Annex 11, and **Austria, France, Greece, Latvia** and **Netherlands** under Annex 14. Therefore, the requirement, as such, is proposed to be removed from the proposed ICAO SMS framework itself. The subject is discussed, in line with the comments provided, in guidance material contained in Chapter 9 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859).

The Secretariat agrees with the comment by **Australia** about the need for clarification regarding continuous improvement to the overall level of safety. Similar comments were made by **United States**, and by **ICCAIA** under Annex 8.

The comment by **Austria** regarding regional regulatory and safety oversight systems, and the role of regional organizations with regulatory or oversight responsibilities in the execution of certain elements of the SMS and the SSP is noted. Similar comments were made by **Germany, Greece, Iceland, Latvia**, and **Netherlands**. The Secretariat disagrees that the wording of the existing safety management provisions, which have been in effect since 23 November 2006, does not support the concept and/or role of regional regulatory and safety oversight systems and organizations. The comment by **Austria, Germany, Greece, Iceland, Latvia**, and **Netherlands** on the collective establishment of acceptable levels of safety has been addressed in response to the comments by **Australia** and **ICCAIA** on acceptable levels of safety at pages B-12 and B-13.

The Secretariat notes the comments by **Austria** regarding the applicability dates of the proposed amendment. Comments on the proposed applicability dates were made by **France, Germany, Greece, Iceland, Japan, Latvia, Netherlands, New Zealand, Panama, Singapore, Sweden, United Kingdom, United States** and **ICCAIA**, under general comments or under specific Annexes. While most comments requested an extension in the applicability dates, **New Zealand** and **United Kingdom** proposed that, given the importance of the subject at hand, the proposed applicability dates should not only be maintained but advanced. Beyond considerations regarding importance, the proposed amendments do not introduce additional requirements for Annexes 6, 11 and 14, but simply provide additional implementation material which should assist in implementing requirements that have been in effect since 23 November 2006. Based on this, the Secretariat believes that the applicability dates should remain as proposed.

The Secretariat notes the comment by **Brazil** regarding the inclusion of the proposed ICAO SSP framework as Attachment F to Annex 11. Comments about the appropriate placeholder for the proposed ICAO SSP framework were made by **Colombia, New Zealand, Sweden, United Kingdom, United States, and IBAC** under Annex 6. The comments are addressed in paragraphs 3.3 through 3.9 of AN-WP/8332, and action proposed. The Secretariat also notes the comment by **Brazil** regarding the need for a definition of CAA. According to the “*Status of Annex components*” included in the Foreword of each Annex, definitions apply to “... terms used in the Standard and Recommended Practices which are not self-explanatory in that they do not have accepted dictionary meanings”. Notwithstanding the differences highlighted by **Brazil** regarding attributions and competence, it is felt that the term CAA is self-explanatory to States.

The comment by **Colombia** to amend the definitions of SSP and SMS as well as element 1.5 of the proposed ICAO SMS framework, is of an amplificatory nature and explicitly addressed in Chapters 6 and 10 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859). Furthermore, the definitions of SSP and SMS have been in effect since 23 November 2006.

The Secretariat notes the comments by **Finland**.

The Secretariat notes the comment by **France** regarding replacing the Appendix on the proposed ICAO SMS framework in each relevant Annex with a supplement. It should be noted that Supplements to Annexes are reserved for notification of differences exclusively. The Secretariat also notes the comment by **France** regarding involvement of States in the development of the text of both proposed ICAO SSP and SMS frameworks. The proposed frameworks and their texts are the product of a combination of best practices and direct feedback obtained from States through the SMS training courses, of which over ninety have been delivered to date. Lastly, the Secretariat notes the editorial comment by **France** and will act accordingly.

The Secretariat notes the comment by **New Zealand** regarding cost-benefit analysis of SMS implementation.

The Secretariat notes the comments by **Norway** regarding terminology. In the absence of specific guidance as to what terms should be more precisely defined, the Secretariat is unable to propose action at the present time.

The Secretariat notes the proposal from **Norway** to drop the figure of the safety manager from element 1.3 of the proposed ICAO SMS framework. A similar comment was made by **Singapore**. However, this could result in allocating the responsibility of implementation and maintenance of an SMS to personnel without the required background and experience, as discussed in Chapter 8 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859).

The Secretariat notes the comment by **Norway** on the requirement for a Safety Management Systems Manual (SMSM) in element 1.6 of the proposed ICAO SMS framework. Similar comments were made by **Sweden and United States, Japan** under Annex 6 and Annex 8, **IBAC** under Annex 6, and **Austria, Finland, Greece, Latvia, Netherlands and CANSO** under Annex 11. Neither the existing text in the framework, nor the supporting guidance material in Chapter 8 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859) deny an organization the alternative of integrating the SMSM into other management documentation.

The Secretariat agrees with the comment by **Norway** about moving the clause on levels of management with authority to make decisions regarding acceptable safety risks from element 2.1 of the proposed ICAO SMS framework to element 1.1. A similar comment was made by **CANSO** under Annex 11.

Regarding the comment by **Norway** on the title and text of element 2.2 of the ICAO SMS framework, normal editorial practice dictates that changes of amplificatory or cosmetic nature should be avoided.

Regarding the comment by **Norway** that the title of element 1.5 should be changed to “Emergency response plan”, the objective of the element is to ensure the *coordination* of the emergency response plan of the SMS “owner” organization with those of interfacing organizations, not the development and maintenance of an emergency response plan. Similar comments were made by **Singapore**, and **France** under Annex 14, and the Secretariat is proposing an editorial correction to clarify the intent of the element.

The Secretariat notes the comment by **Norway** on safety culture. A similar comment was made by **United States**. Chapter 2 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)* discusses the development of an organizational culture that supports safety as a core value and fosters effective safety reporting as the outcome of specific organizational processes, while refraining from using judgemental qualifiers to such an organizational culture .

The Secretariat agrees with the comments by the **Russian Federation** regarding the proposed changes to Annex 13. Similar comments were made by **France** under Annex 13, and **Singapore** and **United States** both under general comments in regard to the proposed ICAO SSP framework, and under Annex 13.

The Secretariat agrees with the comment by **Singapore** about renaming element 1.1 of the proposed ICAO SMS framework as “Safety policy” and element 1.2 as “Management commitment and safety accountabilities”. A similar comment on the title of element 1.2 was made by **United States**.

The Secretariat agrees with the comment by **Singapore** about not including the SMS implementation plan as a perpetual element of an SMS. Similar comments regarding the SMS implementation plan were made by **United States**, by **Saudi Arabia** under Annex 11, and by **China** under Annex 14.

The Secretariat notes the comment by **Singapore** regarding safety objectives and goals. A similar comment was made by **China** under Annex 14. Safety objectives and goals, including the difference between them, are discussed in Chapter 8 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The Secretariat agrees with the comment by **Singapore** that element 1.6 should be renamed “SMS documentation”.

The Secretariat notes the comment by **Singapore** about internal audits as standalone SMS element under component 3 “Safety assurance”. Audits (along with safety studies, surveys and reviews) are discussed in Chapter 9 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*, and proposed as safety data collection tools under element 3.1 “Safety performance monitoring and measurement”.

The Secretariat notes the comment by **Singapore** that reporting systems belong under element 2.2 of the proposed ICAO SMS framework (Hazard identification process). Safety risk management dogma proposes that hazard identification as such is an initial system design activity based upon system description and gap analysis, and delivered on a continuous basis through safety performance monitoring. Under this rationale, reporting systems belong under element 3.1 of the proposed ICAO SMS framework.

The Secretariat notes the comment by **Singapore** about renaming element 3.1 as “Safety performance and acceptable level of safety”, and correcting its text accordingly. The Secretariat agrees that including a clause regarding acceptable levels of safety performance as the frame of reference against which to

execute safety performance monitoring and measurement is appropriate in the text under element 3.1 of the proposed ICAO SMS framework. The Secretariat believes, however, that the existing title should be retained, as it describes the two processes (monitoring and measurement) required by the element.

The Secretariat notes the comment by **Singapore** about renaming element 3.3 “Audit and continuous improvement of the SMS”. The general philosophy underlying the proposed ICAO SMS framework is that the titles of the elements in component 1 describe generic, yet essential *organizational arrangements* to support SMS. On the other hand, the titles of all elements under components 2, 3 and 4 of the proposed ICAO SMS framework describe generic, yet essential *processes* required to operate an SMS. Internal audits are one means, but not the only one, through which to deliver the process of continuous improvement, hence the title for the element.

Regarding the comment by **Singapore** about renaming component 4 of the proposed frameworks for both the SMS and the SSP as “Safety training and communication”, the existing title (promotion) describes an overarching process that is delivered through the combination of two contributing processes (training and communication).

The comment by **Singapore** about including a fifth element under the title “State’s safety policy and objectives” in component 1 of the proposed ICAO SSP framework is noted. The requirement for a State to define its safety policy and objectives is addressed under element 1.1, specifically, in the clause “...that define how the State will oversee the management of safety.”

The disagreement by **Singapore** regarding accident and incident investigation is agreed with.

The Secretariat notes the comment by **Sweden** about including a clause in the text of element 3.1 of the proposed ICAO SMS framework stating that the prime objective [of safety reporting procedures related safety performance monitoring and measurement] is the prevention of accident and incidents and the creation of a non-punitive environment. According to the risk management dogma underlying the proposed ICAO SMS framework, safety performance monitoring and measurement has the objective of generating the information necessary for an organization to ensure that safety risks controls deployed as consequence of initial hazard identification remain valid and effective, and/or to introduce necessary changes.

The Secretariat agrees with the comment by **Sweden** that the note supporting Annex 11, paragraph 2.27.2, needs to be edited.

The Secretariat notes the comments by **Sweden** regarding EC legislation.

The Secretariat notes the comment by **United Kingdom** regarding what is precisely required by ICAO on the date of applicability. A similar comment was made by **United States**. The comment is addressed by State letter AN 12/46-EB/07/30, dated 24 December 2007, where the need for the implementation in phases of an SMS is recognised. The subject is also discussed, as indicated in the comment by **United Kingdom**, in Chapter 10 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859).

The Secretariat notes the comment by **United States** on the need to provide additional amplification regarding the intent of the term “accountability.” The subject is addressed in Chapter 8 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859).

The comment by **United States** on the need to clarify the term “state concerned” is agreed with. A similar comment was made by **Australia**.

The Secretariat notes the comment by **United States** about the need to use leading indicators for measurement and assessment of safety performance. The subject is addressed in Chapter 3 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859).

The Secretariat notes the comment by **United States** about including the risk the organization introduces into the aviation system as a parameter in establishing/evaluating the level of implementation in the Introduction to the proposed ICAO SMS framework. The subject is addressed in Chapter 10 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859).

The comment by **United States** concerning the removal of the clause “human and financial” from element 1.1 of the proposed ICAO SMS framework is agreed with.

The Secretariat agrees with the comment by **United States** to extend the reference to safety responsibilities and accountabilities beyond senior management in the text under element 1.2 of the proposed ICAO SMS framework. Regarding changing the title of element, action is proposed by the Secretariat based upon a similar comment made by **Singapore**.

The Secretariat agrees with the comment by **United States** about the use of the term “safety objectives” instead of “organization’s safety needs” in element 1.4 of the proposed ICAO SMS framework.

The comment by **United States** about the need to clarify the term “coordination” in element 1.4 of the ICAO SMS framework is agreed with. A similar comment was made by **Australia**.

The Secretariat notes the comment by **United States** about the need to define the term “emergency response”. The term is defined in Chapter 8 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859).

The Secretariat agrees with the comment by **United States** that there is an element of ambiguity in the existing language of element 2.1 of the ICAO SMS framework.

The comment by **United States** regarding clarification of tolerability and its relationship to acceptable level of safety is noted. The subject is discussed in Chapters 5 and 6 of the second edition of the *ICAO Safety Management Manual (SMM)* (Doc 9859). The Secretariat is furthermore proposing an editorial correction to address the comment.

The Secretariat agrees with the comment by **United States** that the clause on acceptable and unacceptable behaviours in reference to safety reporting procedures belongs in element 1.1 (as amended by comments in response to the present consultation).

The Secretariat notes the comments by **United States** regarding the clause “to describe arrangements” in element 3.2 of the proposed ICAO SMS framework. While agreeing that the objective of the management of change is to ensure that the change is safe, describing the arrangements to ensure safety performance before implementing changes is consistent with the explicit nature of SMS.

The comment by **United States** about incorporating the eight critical elements to be monitored by the safety oversight function of a State in the description of the proposed ICAO SSP framework is agreed to.

The Secretariat notes the editorial comment by **United States** on the introductory paragraph of the proposed ICAO State Safety Programme (SSP) framework.

The Secretariat agrees with the comment by **United States** regarding the removal of the clause “human and financial ” from the text of element 1.2 of the proposed ICAO SSP framework.

The Secretariat notes the comment by **United States** about including more of the discussion in paragraphs 8.1 and 8.2 of State letter AN 12/51-07/74 into elements 1.1, 2.1, and 3.1 of the proposed ICAO SSP framework. The discussion is included in Chapters 6 and 7 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The comment by **United States** regarding the inclusion of a reference to management effectiveness in elements 1.1 and 2.1 of the proposed ICAO SSP framework is captured in the existing language. As pointed out in the comment itself, such discussion belongs in guidance material, and is included in Chapters 2, 3 and 8 the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The Secretariat notes the comment by **United States** about the proposed change in language of element 1.4 of the proposed ICAO SSP framework. It is felt, however, that the proposed change does not contribute to improve conveying the intent of the element. In addition, the word “leverage” does not translate easily.

The Secretariat notes the comment by **United States** about the proposed change in the title of element 2.1 of the proposed ICAO SSP framework, and conceptually agrees with the comment. Nevertheless, the present title provides consistency with the equivalent element of the proposed ICAO SMS framework without mischaracterizing the intent of the element.

The Secretariat agrees with the comment by **United States** regarding “agreement” instead of “approval” of acceptable levels of safety in element 2.2 of the ICAO proposed SSP framework. A similar comment was made by **CANSO** under Annex 11.

The comment by **United States** regarding the removal of the word “operational ” attached to “hazards” in components 2 and 3 of the proposed ICAO SSP framework is agreed to.

The Secretariat notes the comment by **United States** about the use of the term “oversight” in element 3.1 of the proposed ICAO SSP framework. However, the term is meant to encompass the State’s oversight function, thus including the eight critical elements as well as SMS-specific oversight.

The Secretariat notes the comment by **United States** about the need to define the terms “audits”, “surveys”, and “inspections”. A discussion on the subject is included in Chapter 9 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The comment by **United States** regarding an addition on the need to gather and analyze data at the individual service provider level, as well as at the aggregate level, in element 3.2 of the proposed ICAO SSP framework, is agreed to.

The Secretariat agrees with the comment by **United States** regarding the editorial changes proposed for elements 4.1 and 4.2 of the proposed ICAO SSP framework.

The Secretariat agrees with the comment by **United States** about the inclusion of a clause regarding size and complexity of the SSP and the potential need for inter-agency coordination in the introduction of the proposed ICAO SSP framework.

The Secretariat agrees with the comment by **United States** about the inclusion of the proposed clause regarding the independence of the accident and incident investigation authority in element 1.3 in the introduction of the ICAO SSP framework.

The Secretariat notes the comment by **United States** about including the system description and the gap analysis as part of component 2 of both the ICAO SSP and SMS frameworks. It should be noted, however, that both are means rather than processes needed for an SSP or an SMS, and they are discussed in Chapter 7 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The comment by **ICCAIA** regarding the protection of SMS data is addressed by the discussion in paragraphs 3.3 through 3.9 of AN-WP/8332.

The Secretariat notes the comments by **EUROCONTROL**.

ACTION PROPOSED

(Secretariat's note.— As consequence of and in addition to the comments by States here above, the Secretariat is proposing minor editorial alignments to the text associated to the description of the proposed ICAO SMS and SSP frameworks).

1. Amend Appendix 4 to Annex 1, Appendix 6 to Annex 6, Part I, Appendix 3 to Annex 6, Part III, Section II, Appendix 6 to Annex 11, and Appendix 7 to Annex 14, to read as follows (new amendment underlined; replace the term [organization] in the proposed framework hereunder by *approved training organization* for Appendix 4 to Annex 1, *operator or an approved maintenance organization* for Appendix 6 to Annex 6, Part I, *helicopter operator* in Appendix 3 for Annex 6, Part III, Section II, *air traffic services provider* for Appendix 6 to Annex 11, and *certified aerodrome* for Appendix 7 to Annex 14):

APPENDIX [x]. FRAMEWORK FOR SAFETY MANAGEMENT SYSTEMS (SMS)

Introduction

This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by a[an] [organization]. The framework consists of four components and ~~thirteen~~ twelve elements, and its implementation shall be commensurate with the size of the organization and the complexity of the services provided. This appendix also includes a brief description of each element of the framework.

1. Safety policy and objectives

1.1 ~~Management commitment and responsibility~~ Safety policy

1.2 ~~Safety accountabilities of managers~~ Management commitment and safety accountabilities

1.3 – Appointment of key safety personnel

1.4 ~~SMS implementation plan~~

1.5 4 – Coordination of emergency response planning

1.6 5 – SMS ~~D~~documentation

2. Safety risk management

- 2.1 – Hazard identification process
- 2.2 – Safety Risk assessment and mitigation process

3. Safety assurance

- 3.1 – Safety performance monitoring and measurement
- 3.2 – The management of change
- 3.3 – Continuous improvement of the SMS

4. Safety promotion

- 4.1 – Training and education
- 4.2 – Safety communication

1. Safety policy and objectives

1.1 ~~Management commitment and responsibility~~ Safety policy

The [organization] shall define the organization's safety policy which shall be in accordance with international and national requirements, and which shall be signed by the accountable executive of the organization. The safety policy shall reflect organizational commitments regarding safety; shall include a clear statement about the provision of the necessary ~~human and financial~~ resources for its ~~the~~ implementation of the safety policy; and shall be communicated, with visible endorsement, throughout the organization. The safety policy shall include the safety reporting procedures; shall clearly indicate which types of operational behaviours are unacceptable; and shall include the conditions under which immunity from disciplinary action would be considered. The safety policy shall be periodically reviewed to ensure it remains relevant and appropriate to the organization.

1.2 ~~Safety accountabilities of managers~~ Management commitment and safety accountabilities

The [organization] shall identify the accountable executive who, irrespective of other functions, shall have ultimate responsibility and accountability, on behalf of the [organization], for the implementation and maintenance of the SMS. The [organization] shall also identify the ~~safety~~ accountabilities of all members of ~~senior~~ management, irrespective of other functions, as well as of employees, with respect to the safety performance of the SMS. Safety responsibilities, accountabilities and authorities shall be documented and communicated throughout the organization, and shall include a definition of those the levels of management with authority to make decisions regarding safety risks tolerability.

1.3 Appointment of key safety personnel

The [organization] shall identify a safety manager to be the responsible individual and focal point for the implementation and maintenance of an effective SMS.

1.4 ~~SMS implementation plan~~

~~The approved training organization shall develop and maintain an SMS implementation plan that defines the organization's approach to manage safety in a manner that meets the organization's safety needs. The implementation plan of the [organization] shall explicitly address the coordination between the SMS of the [organization] and the SMS of other organizations the [organization] must interface with during the provision of services. The SMS implementation plan shall be endorsed by senior management of the organization.~~

1.5.4 Coordination of emergency response planning

The [organization] shall ~~develop, coordinate and maintain~~ ensure the coordination of an emergency response plan, that ~~ensures~~ provides for the orderly and efficient transition from normal to emergency operations, and the return to normal operations, with the emergency response plans of those organizations it must interface with during the provision of its services.

1.6.5 SMS Documentation

The [organization] shall develop and maintain SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS ~~procedures~~ processes and ~~processes~~ procedures, the accountabilities, responsibilities and authorities for ~~procedures~~ processes and ~~processes~~ procedures, and the SMS outputs. As part of the SMS documentation, the [organization] shall develop and maintain an SMS implementation plan, endorsed by senior management of the organization, that defines the organization's approach to the management of safety in a manner that meets the organization's safety ~~needs~~ objectives. Also as part of the SMS documentation, the [organization] shall develop and maintain a safety management systems manual (SMSM), to communicate its approach to the management of safety throughout the organization.

2. Safety risk management

2.1 Hazard identification process

The [organization] shall develop and maintain a formal process ~~for collecting, recording, acting on and generating feedback about~~ that ensures that hazards in operations, are identified. Hazard identification shall be based on a combination of reactive, proactive and predictive methods of safety data collection.

2.2 Safety Risk assessment and mitigation process

The [organization] shall develop and maintain a formal ~~risk management~~ process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of the safety risks assessed to the consequences of hazards in operations to ~~an acceptable a~~ level as low as reasonably practicable. The [organization] shall also define those levels of management with authority to make decisions regarding safety risks tolerability.

3. Safety assurance

3.1 Safety performance monitoring and measurement

The [organization] shall develop and maintain the means to verify the safety performance of the organization ~~compared to the safety policy and objectives~~, and to validate the effectiveness of safety risks controls. The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are acceptable or unacceptable, and include the conditions under which immunity from disciplinary action would be considered. The safety performance of the organization shall be verified, and the effectiveness of the safety risk controls shall be validated in reference to the safety performance indicators and safety performance targets of the acceptable levels of safety performance of the SMS.

3.2 The management of change

The [organization] shall develop and maintain a formal process to identify changes within the organization which may affect established processes and services; to describe the arrangements to ensure safety performance before implementing changes; and to eliminate or modify safety risk controls that are no longer needed or effective due to changes in the operational environment.

3.3 Continuous improvement of the SMS

The [organization] shall develop and maintain a formal process to identify the causes of sub-standard performance of the SMS, determine the implications of sub-standard performance of the SMS in operations, and eliminate or mitigate such causes.

4. Safety promotion

4.1 Training and education

The [organization] shall develop and maintain a safety training programme that ensures that personnel are trained and competent to perform the SMS duties. The scope of the safety training shall be appropriate to each individual's involvement in the SMS.

4.2 Safety communication

The [organization] shall develop and maintain formal means for safety communication, that ensures that all personnel are fully aware of the SMS, conveys safety critical information, and explains why particular safety actions are taken and why safety procedures are introduced or changed.

2. Amend Attachment F to Annex 11 to read as follows (new amendment underlined):

ATTACHMENT F. FRAMEWORK FOR THE STATE'S SAFETY PROGRAMME (SSP)

Introduction

This attachment introduces a framework for the implementation and maintenance of a State's safety programme (SSP) by a State. The framework consists of four components and ~~ten~~ eleven elements, outlined hereunder. The implementation of an SSP is commensurate with the size and complexity of the State's aviation system, and may require coordination among multiple authorities responsible for individual element functions within the State. A brief description of each element is presented This attachment also includes a brief description of each element of the framework.

1. State's safety policy and objectives

- 1.1. CAA State safety standards legislative framework
- 1.2. CAA State safety responsibilities and accountabilities
- 1.3. Accident and incident investigation
- 1.4. Enforcement policy

2. State's safety risk management

- 2.1 Safety requirements for service providers SMS
- 2.2 Approval Agreement of on service providers acceptable levels of safety performance

3. State's safety assurance

- 3.1 Safety oversight
- 3.2 Safety data collection, analysis and exchange
- 3.3 Safety data driven targeting of oversight on areas of greater concern or need

4. State's safety promotion

- 4.1 Internal training, communication and dissemination of safety information
- 4.2 External training, communication and dissemination of safety information

Note.— Within the context of this attachment the term “service provider” refers to any organization providing aviation services. The term includes approved training organizations that are exposed to safety risks during the provision of their services, aircraft operators, approved maintenance organizations, organizations responsible for type design and/or assembly of aircraft, air traffic services providers and certified aerodromes operators, as applicable.

1. State's safety policy and objectives

1.1 CAA State safety Standards legislative framework

The State has promulgated a national safety legislative framework and specific regulations ~~to ensure in~~ compliance with international and national standards, ~~and~~ that define how the ~~Civil Aviation Authority (CAA) State~~ will ~~oversee~~ conduct the management of safety in the State. This includes the ~~CAA's~~ participation of aviation organizations of the State in specific activities related to the management of safety in the State, and the establishment of the roles, responsibilities, and relationships of such organizations in the system. The safety standards legislative framework and specific regulations are periodically reviewed to ensure they remain relevant and appropriate to the State.

1.2 CAA State safety responsibilities and accountabilities

The State has identified, ~~and~~ defined and documented the ~~CAA's~~ requirements, responsibilities and accountabilities regarding the establishment and maintenance of the ~~State's safety programme SSP~~. This includes the directives to plan, organize, develop, maintain, control and continuously improve the ~~State's safety programme SSP~~ in a manner that meets the State's safety ~~needs~~ objectives. It also includes a clear statement about the provision of the necessary ~~human and financial~~ resources for the implementation of the ~~State's safety programme SSP~~.

1.3 Accident and incident investigation

The State has established an independent accident and incident investigation process, the sole objective of which is to support the management of safety in the State through the prevention of accidents and incidents, and not the apportioning of blame ~~or~~ liability. In the operation of the SSP, the State maintains the independence of the accident and incident investigation authority from other aviation organizations of the State.

1.4 Enforcement policy

The State has promulgated an enforcement policy that allows service providers to deal with, and resolve, events involving safety deviations and minor violations internally, within the context of the service provider safety management system (SMS), to the satisfaction of the appropriate State authority. The enforcement policy includes provisions ~~for the CAA~~ to deal with events involving gross negligence and wilful deviations through established enforcement procedures.

2. State's safety risk management

2.1 Safety requirements for service providers SMS

The ~~CAA~~ State has established the controls which govern how service providers will identify ~~operational~~ hazards and manage safety risks. These include the requirements, specific operating regulations and implementation policies for service providers SMS. The requirements, ~~and~~ specific operating regulations ~~and implementation policies~~ are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

2.2 ~~Approval~~ Agreement of on service providers acceptable levels of safety performance

The ~~CAA~~ State has agreed ~~on, and approved, acceptable levels of safety~~ with individual service providers on acceptable levels of safety performance of their SMS. These acceptable levels of safety performance of the SMS of individual service providers are commensurate to the complexity of individual service provider's providers specific operational contexts ~~and the availability of individual service provider's resources to address safety risks~~. The agreed acceptable levels of safety are expressed by multiple safety performance indicators and safety performance targets, never by a single one, as well as by safety requirements. The agreed acceptable levels of safety performance of individual service providers SMS are periodically reviewed to ensure they remain relevant and appropriate to the service providers.

3. State's safety assurance

3.1 Safety oversight

The ~~CAA~~ State has established mechanisms to ensure ~~that~~ an effective monitoring of the eight critical elements of the safety oversight function. The State has also established mechanisms to ensure that the identification of ~~operational~~ hazards and the management of safety risks by service providers follow established regulatory controls (requirements, specific operating regulations and implementation policies). These mechanisms include inspections, audits and surveys to ensure that regulatory safety risk controls are appropriately integrated into the service providers SMS, that they are being practiced as designed, and that the regulatory controls have the intended effect on safety risks.

3.2 Safety data collection, analysis and exchange

The ~~CAA~~ State has established mechanisms to ensure the capture and storage of data on ~~operational~~ hazards and safety risks at both an individual and aggregate State's level. The ~~CAA~~ State has also established mechanisms to develop information from the stored data, and to actively exchange safety information with service providers and/or other States as appropriate.

3.3 Safety data driven targeting of oversight on areas of greater concern or need

The ~~CAA~~ State has established procedures to prioritize inspections, audits and surveys towards those

areas of greater safety concern or need, as identified by the analysis of data on ~~operational hazards, their consequences in operations, and the assessed safety risks areas.~~

4. State's safety promotion

4.1 Internal training, communication and dissemination of safety information

The ~~CAA State~~ provides training, and fosters awareness, and two-way communication of safety relevant information to support, within ~~the CAA, aviation organizations of the State,~~ the development of an ~~positive~~ organizational culture that fosters ~~the development of~~ an effective and efficient State's safety programme ~~SSP.~~

4.2 External training, communication and dissemination of safety information

The ~~CAA State~~ provides education, and promotes awareness of safety risks and two-way communication of safety relevant information, to support among services providers the development of an ~~positive~~ organizational culture that fosters ~~safe practices, encourages safety communications and actively manages safety with the same attention to results as financial management~~ an effective and efficient SMS.

REFERENCE: Annex 1, Chapter 1, paragraphs 1.1, 1.2.4 and 1.2.8; Chapter 6, Nnote 6, Appendix 2, paragraph 4
Attachment to State letter AN 12/51-07/74, pages A-2 to A-7

STATES' AND INTERNATIONAL ORGANIZATIONS' COMMENTS

Australia

CASR Part 141 will require a Flight Training Organisation to have an SMS in place.

Austria

Definition of Safety Programme, amend it as follows: "*An integrated set of regulations and activities aimed at improving safety, implemented by States individually or collectively*".

The impact on safety, when SMS is required to be established by all approved trainings organisations (including small training organisations, training organisation for recreational pilots etc.) is very little and questionable. Annex 1 requires a SMS system independent on the size of organisation. It has to be verified, that when a small organisation is not sufficiently exposed to operational risks, a full SMS is not required for these organisations. However, we consider that training organisations contributions to the overall SMS required under Annex 6, 8, 11 and 14 are important. The State safety programme shall require adequate coordination of training organisations with the primarily affected organisations of Annex 6, 8, 11 and 14.

Argentina

(Note.— See appropriate partial language version of this AN-WP for original text.)

1.2.4 Medical fitness, 1.2.4.2, we suggest that the diseases endemic to our country and to the rest of Latin America be included in the *Manual of Civil Aviation Medicine* (Doc 8984).

Colombia

(Note.— See appropriate partial language version of this AN-WP for original text.)

Appendix 2, 4.1 States shall require, as part of their safety programme, that, during the provision of its services, an approved training organization ~~that is exposed to operational safety risks during the provision of its services~~ implement...

Appendix 4, Introduction. This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by an approved training organization ~~that is exposed to operational safety risks~~ during...

Finland

Definition of Safety Programme: amending as follows: “An integrated set of regulations and activities aimed at improving safety, implemented by States individually or collectively”.

France

(Note.— See appropriate partial language version of this AN-WP for original text.)

Annex 1, requiring an SMS of approved organizations without having first defined what the approved organizations should be amounts to not knowing what training will be covered by an SMS. Thus we risk widening the gap between States which have decided to better structure their training by requiring approval and States which have not yet decided to do so. It would thus be advisable to study this matter more in depth with the States and parties concerned.

Safety programme. An integrated set of regulations and activities aimed at improving safety ~~which is implemented by States individually or collectively~~ (Clarification as to the requirements regarding system implementation on a regional level).

Delete section 1.5 of Appendix 4. The advantage of emergency response planning for training organizations has not been demonstrated.

Greece

(Secretariat’s note.— See comments by Finland above).

Japan

Comment for amendment of SMM (Doc 9859): the current version of the Safety Management Manual (Doc 9859) does not contain any guidance materials in the field of Annex 1 and the amendment of Doc 9859 is understood to be under development to this end. We strongly request that the amendment should be available as soon as possible so that all stakeholders of Annex 1 can prepare for the introduction of the SMS in time.

Comment for an applicability date for proposed amendment of Annex 1: since it is considered necessary to ensure that all stakeholders are fully aware of the SMS, the applicability date for Annex 1 should be set at least three years later than the adoption of the Council in accordance with established procedures.

Latvia

(Secretariat's note.— See comments by Finland above).

Netherlands

(Secretariat's note.— See comments by Finland above).

Saudi Arabia

(Secretariat's note.— This comment concerns the proposal of amendment as a whole).

Definitions

Safety Management System: human and financial resources are considered as the basic component required for the implementation of SMS. It is proposed to add the word “resources” after “necessary”.

Safety programme: to improve the safety level, the regulatory activities shall focus on technical aspects and implementation issues. In fact, safety is ensured by technical activities which can lead to an effective safety oversight and an improvement of the overall level of safety in the provision of services. It is proposed to add the word “technical and implementation” before “activities”.

Paragraph 1.2.4, as defined the safety programme will mainly concern the civil aviation authority. The medical assessments are mainly performed by specialized medical centres. Therefore, re-evaluation of the medical assessment process will mainly comprise an assessment of medical tests. Based on the previous comments, it is recommended to redraft the recommendation as follows: *Recommendation: State shall ensure that medical assessment process of license holders; include, at least, the following: paragraph a) and b) remain as it is).*

Appendix 2, 4.1, the wording of paragraph 4.1 shall be reviewed to clarify the notion of “exposed to operational safety risks”. In fact, the widespread use of simulator in aviation training reduces the operations safety risks.

Singapore

1.2.4, Singapore agrees with the amendments as stated. This will ensure data collection by all Civil Aviation Authorities and result in a more evidence based set of medical SARPs. It is suggested that a note be added to reflect that returns on the data collected should be submitted to ICAO on an annual basis for collation and analysis and subsequent feedback to States.

Appendix 2, Introduction, it would be useful for ICAO to clarify the term “operational safety risks”, i.e. whether it applies only to ATOs whose services include actual aircraft flight (training) operations, or whether ATOs (especially Maintenance Training Organisations) whose services do not include or cover actual aircraft flight operations are required to comply as well. For example, if “operational safety risks” refers to those activities conducted in an operational environment, the training of probationary ATCOs using ATC simulators would probably not be come under the activities involving operational safety risks. Such a training organization for ATCOs would then not be required to meet this SARP.

United States

1.2.4.2, change a) to, “routine ~~collection and~~ analysis...” The U.S. has not identified a need to implement a specific reporting system or data collection effort on in-flight incapacitations. The complexities involved in establishing a specific collection system would be quite challenging due to the large number of commercial and general aviation operations conducted in the United States.

Section 4, expand scope of applicability of SMS requirements. Proposed provisions to changes in Annex 1 requirements for approved training organizations limit these requirements to “...an approved training organization that is exposed to operational safety risks during the provision of its services...” This would seem to place the focus on controlling risks to students and training organizations that are incurred during flight training. While this is a worthwhile goal, we feel it neglects the primary contribution of flight training to the air transportation system. Given that many training organizations, particularly those who provide services to commercial operations are increasingly limited to use of ground-based simulators, we feel that limiting SMS requirements only to those organizations that perform flight operations is too limiting and focuses on too narrow an aspect of these organizations’ importance to the air transportation system.

ASECNA

(Note.— See appropriate partial language version of this AN-WP for original text.)

To carry out medical assessments, it would be advisable that, with the assistance of the WHO, for instance, ICAO set up a primary database comprised of a list of illnesses or deficiencies and their impact on safety services. A primary database of this kind requires very high quality human, financial and material resources which States and organizations do not individually have. A comprehensive and preliminary ICAO-level database could be used and improved upon by States. The time between now and November 2010 should be used by the international community to establish such a database.

CANSO

It is important to emphasize that the framework for the implementation and maintenance of a safety management system (SMS) is scalable to the size of the organization and the complexity of the services provided.

EUROCONTROL

The proposed definition of SMS is quite different from the one implemented through ESARR 3, and as adopted in Regulation (EC) N°. 2096/2005 (the "Common Requirements"). In addition, the ICAO perception of a "System" differs from that as applied by EUROCONTROL/the EC. Also, neither EUROCONTROL nor the EC have a specific definition for "Safety Programme", but the elements of their definitions for "Safety Achievement" and "Safety Regulatory Requirement" fit into it.

1.2.4.2, the recommendation on medical fitness does not pose any problem in itself, but it is clearly aimed at flight crew only (“[...] *in-flight incapacitation events* [...]”). Since Annex 1 equally deals with the licensing of ATCOs *et al* and the associated medical requirements, such recommendation should be extended/applicable to ATM personnel and/or any such category (-ies) of personnel for which licensing requirements exists.

Chapter 6, Note 6, whereas the rationale of the Note is accepted, it is unclear what is meant by “*basic safety management principles*”; also, the scope of the latter has been narrowed down to the “effective utilisation” of resources, which, from the European perspective, is just one element of a “System”.

Appendix 2, paragraph 4, it is not clear why paragraph 4 was inserted, since the detailed provisions to accurately establish and maintain an SMS within approved training organisations are embedded in the new Appendix 4.

Appendix 4, can be considered the counterpart of the essentials of ESARRs 3 and 4 (and associated Common Requirements provisions). Still, with reference to the said ESARRs and the explanatory material in the Annexes to the Common Requirements, Appendix 4 is not nearly as detailed, nor does it follow their rigid logic. In order to fully appreciate the differences between this Appendix and the comparable European regulations, a thorough mapping of the two sets of texts will be necessary.

SECRETARIAT'S COMMENTS

The comment by **Australia** is noted.

The Secretariat notes the comment by **Austria** regarding the proposed amendment to the definition of the State Safety Programme (SSP). The same comment was made by **Finland, France, Greece, Latvia** and **Netherlands**. It should be noted, however, that neither the definition of SSP nor associated guidance material in Chapters 6 and 10 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)* denies the alternative of collective implementation of an SSP by a group of States, if so appropriate and possible. The concern expressed by **Austria** about SMS requirements as a function of the exposure to operational risks and size of training organizations is properly addressed by the existing proposal. A similar comment was made by **CANSO**.

The comment by **Argentina** is beyond the scope of the proposal under consideration.

The Secretariat notes the comment by **Colombia** to remove the clause “that is exposed to operational safety risks” from Appendix 2, 4.1, and Appendix 4, Introduction. However, the exposure to operational safety risks is the deciding criteria whether a training organization must or must not implement an SMS.

The Secretariat notes the comment by **France** regarding the definition of approved [training] organizations. The definition of approved training organization can be found in Annex 1, Chapter 1, Definitions and general rules concerning licenses. Further guidance on approved training organizations can be found in the *Manual on the Approval of Flight Crew Training Organizations (Doc 9841)*.

The Secretariat notes the comment by **France** regarding demonstration of the advantages of emergency response planning for training organizations. The need for organizations that are exposed to operational risks during provision of services to have an emergency response plan is inherent to safety management dogma.

The Secretariat notes the comment by **Japan** regarding the amendment of the *ICAO Safety Management Manual (SMM) (Doc 9859)*. The guidance material included in the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)* provides the necessary information to assist Annex 1 related SMS implementation activities. With regard to the three-year implementation period commented by **Japan**, it applies only to Annex 8, according to Article 41 of the Convention on International Civil Aviation.

The Secretariat notes the comment by **Saudi Arabia** to amend the definition of safety management systems. In this context, the provision of human and financial resources is encompassed under “accountabilities”, as included in the existing definition of SMS. The comment by **Saudi Arabia** to

amend the definition of safety programme would unduly restrict activities to be performed under the safety programme.

The Secretariat notes the comment by **Saudi Arabia** regarding redrafting 1.2.4. The proposal in 1.2.4.2 b) circulated through State letter AN 12/17-07/74 refers to the re-evaluation of the medical assessment process itself, not to the medical assessment of individual licence holders.

The Secretariat agrees with the comment by **Saudi Arabia** that the term “operational safety risks” must be reviewed. A similar comment was made by **Singapore**.

The comment by **Singapore** suggesting that medical data collected should be submitted to ICAO on an annual basis for collation and analysis and subsequent feedback to States is noted. It is felt that the comment is outside the scope of the present consultation, however, it could be addressed by future work.

The Secretariat agrees with the comment by **United States** to remove the reference to “collection” from the proposed Recommendation 1.2.4.2 a).

The Secretariat notes the comment by **United States** regarding the extension of the scope of applicability of SMS requirements for approved training organizations. The purpose of introducing SMS in an approved training organization is to control safety risks that are incurred during training delivery. There are no safety risks incurred during ground-simulator training delivery.

The Secretariat notes the comment by **ASECNA**.

The Secretariat notes the comments by **EUROCONTROL** regarding the definitions of safety management systems and safety programme.

The Secretariat notes the comments by **EUROCONTROL** about extending the recommendation on medical fitness to licences other than flight crew members. The text in Recommendation 1.2.4.2 refers to the “medical assessment process of *licence holders*”(emphasis added), and includes an “as a minimum” clause.

The comments by **EUROCONTROL** about what is meant by “*basic safety management principles*” and about narrowing the scope of the proposed Note 6 in Chapter 6 to “resources” are noted. In this context, the clause “*basic safety management principles*” must be interpreted to encompass hazard identification and risk management as the two basic principles/processes underlying safety management, and assisting in the effective utilization of resources is precisely the objective of the proposal.

Regarding the comment by **EUROCONTROL** that it is not clear why paragraph 4 was inserted in Appendix 2 since the detailed provisions are embedded in the new Appendix 4, it should be noted that paragraph 4 contains the basic standard that Appendix 4 supports.

The Secretariat notes the comment by **EUROCONTROL** referencing Appendix 4 to ESARRs 3 and 4 and associated Common Requirements provisions.

ACTION PROPOSED

(Secretariat’s note.— The Secretariat is proposing an editorial alignment to the definition of safety programme).

1. Amend Annex 1, Chapter 1, Definitions to read as follows (new amendment underlined):
State safety programme. An integrated set of regulations and activities aimed at improving safety.
2. Amend Annex 1, Chapter 1, 1.2.4.2a) and supporting Note to read as follows (new amendment underlined):

1.2.4.2 **Recommendation.**— States should apply, as part of their State safety programme, basic safety management principles to the medical assessment process of licence holders, that as a minimum include:

- a) routine ~~collection and~~ analysis of in-flight incapacitation events...

Note.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11. Guidance on State safety programmes and safety management principles is contained in the Safety Management Manual (SMM) (Doc 9859) and the Manual of Civil Aviation Medicine (Doc 8984).

3. Amend Annex 1, Appendix 2, paragraph 4.1, to read as follows (new amendment underlined):

4.1 States shall require, as part of their State safety programme, that an approved training organization that is exposed to ~~operational~~ safety risks during the provision of its services implement a safety management system acceptable to the State that, as a minimum:

- ...
- b) ensures that remedial action necessary to maintain ~~an~~ acceptable level(s) of safety performance is implemented;
- c) provides for continuous monitoring and regular assessment of the safety acceptable level(s) of safety performance achieved; and
- d) aims ~~to make at a continuous improvement to~~ of the ~~overall~~ acceptable level(s) of safety performance of the safety management system.
- ...

Note 1.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11.

REFERENCE: Annex 6, Part I, Chapter 3, paragraph 3.2, Chapter 8, paragraph 8.7.3, Appendix 2, paragraph 2; Part III, Section II, Chapter 1, paragraphs 1.1 and 1.2, Chapter 6, paragraph 6.2, Attachment H, paragraph 2.1
Attachment to State letter AN 12/51-07/74, pages B-2 to B-12

STATES' AND INTERNATIONAL ORGANIZATIONS' COMMENTS

Australia

Annex 6, Part I does not mention Human Factors, for example, fatigue, non-technical skills and human performance. Human error is a known and well documented causal factor in maintenance incidents. A requirement to focus on this issue would be a great improvement to a Safety Management System.

The same comments apply for Annex 6, Part III.

Austria

Annex 6, Part I, para. 3.2.2: “~~The~~ acceptable level(s) of safety to be achieved shall be established ~~by the State concerned~~ and implemented by States individually or collectively”. This comment applies equally to Annex 6, Part I, para. 8.7.3.2 and Annex 6, Part III, paras. 1.2.2, 6.2.1 and 6.2.2

Colombia

(Note.— See appropriate partial language version of this AN-WP for original text.)

Appendix 2. Organization and contents of an operations manual, contents:

2.1.34 Details of the ~~accident prevention and flight safety programme~~ safety management system (SMS) are those provided in accordance with Chapter 3, 3.2, ~~including a statement of safety policy and the responsibility of personnel.~~

Finland

(Secretariat’s note.— See comments by Austria above).

France

(Note.— See appropriate partial language version of this AN-WP for original text.)

(Secretariat’s note.— See comments by Austria above).

Greece

(Secretariat’s note.— See comments by Austria above).

Japan

Part I, Appendix 2, 2.1.34, because it would be complex to provide details of the SMS in accordance with Chapter 3, 3.2 in both the Operations Manual required in Appendix 2 and the Safety Management Manual (SMM) required in Appendix 6, 1.6, such flexibility should be accepted as to provide details of the SMS in either of the Operations Manual or SMM and to only refer to such facts in the other manual. From the point of view above, Japan would like to propose to add the note to Appendix 2, 2.1.34 as follows: “Details of the safety management system (SMS) provided in accordance with Chapter 3, 3.2. Note: If details of the SMS are already incorporated in SMM, it is acceptable only to refer to such facts here.”

Appendix 6, 1.6, as part of the SMS documentation of Approved Maintenance Organizations (AMO), it should be accepted that AMO incorporate SMS documents into their Maintenance organization’s procedures manual required in Annex 6, Part I, 8.7.2, if appropriate, instead of developing separate Safety Management Manual. From the point of view above, Japan would like to propose to amend proposed text of Appendix 6, 1.6 as follows: “1.6 Documentation, as part of the SMS documentation, the operator/approved maintenance organization shall develop a safety management manual (SMM) or incorporate its content into their existing manuals, and maintain them, to communicate its approach to safety throughout the organization.”

Part III, Attachment H, 2.1.27, because it would be complex to provide details of the SMS in accordance with Section II, Chapter 1, 1.2.5 to both Operations Manual required in Attachment H and the Safety Management Manual (SMM) required in Appendix 3, 1.6, it should be accepted to provide details of the

SMS in either of the Operations Manual or SMM and refer in other manual. From the point of view above, Japan would like to propose to add the note to Attachment H, 2.1.27 as follows: “2.1.27 Details of the safety management system (SMS) provided in accordance with Section II, Chapter 1, 1.1.9. Note: If details of the SMS are already incorporated in SMM, it is acceptable only to refer to such facts here.”

Part III, Section II, Chapter 6, 6.2, proposed paragraph 6.2 in Annex 6, Part III, Section II is a provision for SMS implementation to the maintenance of helicopter ‘operators’. However, paragraph 1.2 has already required the helicopter operators to implement SMS. If the said paragraph 6.2 is the SMS provision to helicopter “approved maintenance organization (AMO)”, the word “the operator” in this paragraph 6.2 should be amended to “the approved maintenance organization”. It is also appropriate that the all paragraphs of Part I, 8.7 are provided as Part III, Section II, the new paragraph 6.7 so that the provision order of Part III, Section I, Chapter 6 is consistent with that of Part I, Chapter 8. Furthermore, even though there is no independent paragraph of AMO in Annex 6, Part III, Section II, the existing paragraph 6.1.2 refers to Part I, 8.7, and in its subparagraph, AMO is required to introduce SMS (8.7.3). Consequently, there are two separate SMS provisions for the helicopter AMO which are coming from paragraph 6.2 proposed this time and Part I, paragraph 8.7 quoted from Part III, Section II, 6.1.2. They should be fixed.

Part III, Section II, Chapter 6, 6.2, and Appendix 3, 1.6, if the SMS implementation to helicopter AMO is required in the new paragraph 6.7 as above item 6, as part of the SMS documentation of helicopter AMO, it should be accepted that Helicopter AMO incorporate SMS documents into their Maintenance organization’s procedures manual which would be required in Annex 6, Part III, Section II, 6.7, if appropriate, instead of developing separate Safety Management Manual. From the point of view above, Japan would like to propose to amend proposed text of Appendix 3, 1.6 as follows: “1.6 Documentation, as part of the SMS documentation, the helicopter operator/approved maintenance organization shall develop a safety management manual (SMM) or incorporate its content into their existing manuals and maintain them, to communicate its approach to safety throughout the organization.”

We consider that the applicability date of the amendment of Chapter 6 Helicopter Maintenance should be 18 November 2010, along with the applicability date of Annex 8 amendment.

Latvia

(Secretariat’s note.— See comments by Austria above).

Netherlands

(Secretariat’s note.— See comments by Austria above).

Singapore

Annex 6, Part III, Chapter 6 – Singapore notes that paragraph 6.2.3 is identical to 1.2.3 and 1.2.4. ICAO may wish to review whether the term "operator" in 6.2.3 is appropriate in the context of this Chapter 6 on helicopter maintenance. The wordings used should be phrased to avoid any potential misinterpretation that a single helicopter operator is required to maintain two separate safety management systems – one for operations (Standards 1.2.3 and 1.2.4) and another for maintenance (Standard 6.2.3).

EUROCONTROL

Appendix 2. In contrast to Annex 1, Appendix 2 of Annex 6 does not contain the generic elements of an SMS, which reinforces the view that Annex I could be simplified, c.q. streamlined to that effect.

Chapter 6, 6.2, is largely identical to Appendix 2, paragraph 4, with the exception of a clear statement regarding the establishment of a State's safety programme, and the setting and achievement of acceptable levels of safety. Also, the SMS to be implemented by operators is not limited to *"the exposure to operational safety risks during the provision of its services."* as is Appendix 2, paragraph 4. From a standardization point of view it should be recommended that these (and similar) paragraphs be further harmonized.

Appendix 3 is identical to Appendix 4 of Annex 1, with the exception of the identification of the responsible organisation, i.e. *"a helicopter operator/approved maintenance organisation"*, so that the comments to the said Appendix apply.

IBAC

Annex 6 Part I, 3.2.2: it is noted that the proposed Annex 6 Part I amendment includes cross references to Annex 11 Attachments E & F. This will oblige the reader of Annex 6 Part I to obtain and refer to Annex 11 "Air Traffic Services" which, irrespective is in our opinion, an in-appropriate repository for the material contained in Attachments E & F.

SMS framework: the second sentence of the Introduction includes the very important point that "...its implementation shall be commensurate with the size of the organization and the complexity of the services provided." We would therefore suggest, as a matter of editorial presentation, the 'bolding' of this portion of the text.

Under the heading "Safety policy and objectives", we recommend one addition i.e. "SMS Safety objectives and performance goals"

We recommend that the following sentence be added to the currently proposed text under "1.6 Documentation": "In a small organization the SMM may take the form of a chapter in the operations manual or the maintenance procedures manual." Reason: To recognize that, for example, in a small operator the requirement to develop and maintain a separate SMS Manual may be excessive.

ICCAIA

It is common for a maintenance organisation to hold approvals or certificates from several civil aviation authorities. The maintenance organisation should only be required to comply with the SMS requirements of the State in which the repair facility is located, and not all other States that may have issued their own repair certificate to that facility. The same arguments apply to training organisations, should more than one State approve the same training organisation, to helicopter and aircraft commercial operations if any States other than the State of the Operator require operational approval specifications approvals. If those States impose their own SMS requirements, these organisations/operators will be faced with multiple, and likely conflicting, SMS requirements. The requirements of the State of the organisation/operator should take precedence.

SECRETARIAT'S COMMENTS

The Secretariat notes the comment by **Australia** regarding Human Factors. Human Factors knowledge is operationally integrated into the overall ICAO safety management proposal.

The Secretariat notes the comment by **Austria** regarding the establishment of acceptable levels of safety collectively by States. A similar comment was made by **Finland, France, Greece, Latvia and Netherlands**. The Secretariat comments regarding acceptable levels of safety performance can be found at pages B-12 and B-13. Under the perspective therein presented, it is difficult if not altogether impossible to envision the establishment of acceptable levels of safety performance collectively by States. Nevertheless, neither the definition of acceptable level(s) of safety nor the guidance material in Chapter 6 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)* denies the alternative of collective implementation of acceptable level(s) of safety performance by a group of States, if so possible.

The proposal by **Colombia** regarding Annex 6, Appendix 2, paragraph 2.1.34, is editorially inconsistent with the style of the Appendix.

The comment by **Japan** regarding the requirement to include details of an SMS as part of the contents of an operations manual in Annex 6, Part I, Appendix 2, paragraph 2.1.34, and Part II, Section II, Attachment H, paragraph 2.1.27 is noted. However, the proposed amendment is only an editorial alignment of an existing provision to make it consistent with the harmonized safety management requirements and does not involve the introduction of a new provision.

The Secretariat agrees with the comment by **Japan** regarding SMS implementation for helicopter operators maintenance in Annex 6, Part III, Section II, Chapter 6. A similar comment was made by **Singapore**. Provisions regarding maintenance responsibilities in Annex 6, Part III, Section II, Chapter 6, establish that a helicopter shall not be operated unless it is maintained and released to service by an organization approved in accordance to Annex 6, Part I, paragraph 8.7 (approved maintenance organization), or by a person licensed in accordance to Annex 1. Since SMS cannot be applied against individuals, and the requirement to establish an SMS by approved maintenance organizations already exists in Annex 6, Part I, Chapter 8, the proposed SMS requirement for helicopter maintenance in Annex 6, Part III, Section II, Chapter 6 would be redundant. The Secretariat is therefore proposing to completely withdraw the proposal for SMS implementation for helicopter maintenance in Annex 6, Part III, Section II, Chapter 6, circulated through State letter AN 12/17-07/74.

The Secretariat notes the comments by **EUROCONTROL** regarding the dissimilarities between Annex 1 and Annex 6. The comments refer to unrelated provisions, hence the dissimilarities.

The comment by **IBAC** regarding “bolding” specific text is inconsistent with editorial practices for Annexes.

The Secretariat notes the comment by **IBAC** about including the addition of “SMS safety objectives and performance goals” under the component Safety policy and objectives of the proposed ICAO SMS framework. It should be noted, however, that safety objectives are typically included in the safety policy, and the safety performance goals of an SMS or an SSP are the constituents of an acceptable levels of safety performance.

The Secretariat notes the comment by **ICCAIA**, regarding the potential situation where approval by more than one State for the SMS of an organization may be necessary. However, nothing in the proposed safety

management requirements implies multiple approvals for maintenance organizations, for training organizations or for any other aviation organization.

ACTION PROPOSED

(Secretariat's note.— The Secretariat is proposing an editorial alignment to the definition of safety programme)

1. Amend Annex 6, Part I, Chapter 1, Definitions to read as follows (new amendment underlined):

State ~~S~~safety programme. An integrated set of regulations and activities aimed at improving safety.

2. Amend Annex 6, Part I, Chapter 3, paragraph 3.3.1 to read as follows (new amendment underlined):

3.3.1 States shall establish a State safety programme, in order to achieve ~~an~~ acceptable level(s) of safety performance in the operation of aircraft.

3. Amend Annex 6, Part I, Chapter 3, paragraph 3.3.2 to read as follows (new amendment underlined):

3.3.2 The acceptable level(s) of safety performance to be achieved shall be ~~established~~ agreed by between the State(s) State of the Operator concerned and the operator.

Note 1.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11, and Guidance on a State's safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and the definition of on defining acceptable levels of safety is contained in Attachment E to Annex 11.

Note 2.— Guidance on defining acceptable level(s) of safety performance is contained in Attachment E to Annex 11 and in the Safety Management Manual (SMM) (Doc 9859).

4. Delete Annex 6, Part I, Chapter 3, paragraph 3.3.3, and amend Annex 6, Part I, Chapter 3, paragraph 3.3.4 to read as follows (new amendment underlined):

3.3.4.3 ~~From 1 January 2009,~~ States shall require, as part of their State safety programme, that an operator implement a safety management system acceptable to the State of the Operator that, as a minimum:

...

- b) ensures that remedial action necessary to maintain ~~an~~ acceptable level(s) of safety performance is implemented;
- c) provides for continuous monitoring and regular assessment of the safety acceptable level(s) of safety performance achieved; and
- d) aims ~~to make~~ at a continuous improvement to of the overall acceptable level(s) of safety performance of the safety management system.

Editorial Note.— Re-number subsequent paragraphs

5. Amend Annex 6, Part I, Chapter 8, paragraph 8.7.3.1 to read as follows (new amendment underlined):

8.7.3.1 States shall establish a State safety programme, in order to achieve an acceptable level(s) of safety performance in the maintenance of aircraft.

6. *Amend* Annex 6, Part I, Chapter 8, paragraph 8.7.3.2 to read as follows (new amendment underlined):

8.7.3.2 The acceptable level(s) of safety performance to be achieved shall be ~~established~~ agreed by between the State's State concerned and the maintenance organization.

Note 1.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11, and Guidance on a State's safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859); and the definition of on defining acceptable levels of safety is contained in Attachment E to Annex 11.

Note 2.— Guidance on defining acceptable level(s) of safety performance is contained in Attachment E to Annex 11 and in the Safety Management Manual (SMM) (Doc 9859) .

7. *Delete* Annex 6, Part I, Chapter 8, paragraph 8.7.3.3, and *amend* Annex 6, Part I, Chapter 8, paragraph 8.7.3.4 to read as follows (new amendment underlined):

8.7.3.3 ~~From 1 January 2009,~~ States shall require, as part of their State safety programme, that a maintenance organization implement a safety management system acceptable to the State that, as a minimum:

...

- b) ensures that remedial action necessary to maintain an acceptable level(s) of safety performance is implemented;
- c) provides for continuous monitoring and regular assessment of the safety acceptable level(s) of safety performance achieved; and
- d) aims to make at a continuous improvement to of the overall acceptable level(s) of safety performance of the safety management system .

Editorial Note.— Re-number subsequent paragraphs.

8. *Amend* Annex 6, Part III, Chapter 1, Definitions to read as follows (new amendment underlined):

State Safety programme. *An integrated set of regulations and activities aimed at improving safety.*

9. *Amend* Annex 6, Part III, Chapter 1, paragraph 1.2.1 to read as follows (new amendment underlined):

3.2.1 States shall establish a State safety programme, in order to achieve an acceptable level(s) of safety performance in the operation of aircraft.

10. *Amend* Annex 6, Part III, Chapter 1, paragraph 1.2.2 to read as follows (new amendment underlined):

1.2.2 The acceptable level(s) of safety performance to be achieved shall be ~~established~~ agreed by between the State(s) State of the Operator concerned and the operator.

Note 1.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11, and Guidance on a State's safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and the definition of on defining acceptable levels of safety is contained in Attachment E to Annex 11.

Note 2.— Guidance on defining acceptable level(s) of safety performance is contained in Attachment E to Annex 11 and in the Safety Management Manual (SMM) (Doc 9859) .

11. Delete Annex 6, Part III, Chapter 1, paragraph 1.2.3, and amend Annex 6, Part III, Chapter 1, paragraph 1.2.4 to read as follows (new amendment underlined):

1.2.4.3 ~~From 1 January 2009,~~ States shall require, as part of their State safety programme, that an operator implement a safety management system acceptable to the State of the Operator that, as a minimum:

...

- b) ensures that remedial action necessary to maintain an acceptable level(s) of safety performance is implemented;
- c) provides for continuous monitoring and regular assessment of the safety acceptable level(s) of safety performance achieved; and
- d) aims to make at a continuous improvement to of the overall acceptable level(s) of safety performance of the safety management system .

Editorial Note.— Re-number subsequent paragraphs

12. *Withdraw* the proposal to introduce SMS requirements for helicopter maintenance in Annex 6, Part III, Section II, Chapter 6, Attachment B to State letter AN 12/52-07/74, pages B-8 to B-12

REFERENCE: Annex 8, Part I, Part II, Chapter 5, paragraphs 5.1, 5.2, 5.3, and 5.4
Attachment to State letter AN 12/51-07/74, pages C-2 to C-6

STATES' AND INTERNATIONAL ORGANIZATIONS' COMMENTS

Australia

In the context of the proposed changes referred to in the State letter, Australia would like to recommend that section 2.2.3 be amended to read: "When approving production of aircraft or aircraft parts, a Contracting State shall ensure that it is performed in a controlled manner, including the use of a quality system so that construction and assembly are satisfactory. The quality system shall be part of the production organisation's safety management system."

With respect to the new proposed Chapter 5 to Part II of Annex 8, Australia would like to recommend the following changes:

- 5.1 amend to read "... level of safety in the certification, production and continuing airworthiness of aircraft."

5.2 amend to read “.... An organisation responsible for the type design, **production** and final assembly of an aircraft

5.3 add a new para e) to read “includes a quality system to ensure that construction and assembly are **satisfactory.**”

Annex 8 has recently been changed to add a new Part VI dealing with engines and a new Part VII dealing with propellers. The requirements for SMS are proposed for Part II which continues to apply to aircraft, and the proposed language in section 5.3 specifically refers to aircraft. Thus, as constructed within the annex, the SMS requirements would not apply to engines or propellers.

Austria

Annex 8, para. 5.1 “~~States shall establish a safety programme~~, in order to achieve an acceptable level of safety in the certification and continuing airworthiness of aircraft a safety programme shall be established and implemented by States individually or collectively”.

Annex 8, para. 5.2: “~~The acceptable level(s) of safety to be achieved shall be established by the State concerned~~ and implemented by States individually or collectively”.

Paragraph 5.3: Relative to production, the setting up an SMS should take into account that it may be difficult for them to manage in isolation the safety of their products to the extent required by paragraph 5.3 (a) and (c) because they don’t have the full visibility of the safety level achieved by the product. Two options may be explored:

- The production organisation system for managing safety is integrated in the design organisation system. This would work well when the production organisation and the design organisation are part of the same organisation.
- The system for managing safety for a production organisation reflects the need to consult the Design organisation to fully achieve the intent of the text.

The proposed modification to Annex 8 should reflect the fact that the design organisation has much more possibilities to influence the overall safety level of a product than the production organisation.

China

We “disagree” to the proposed amendment to Annex 8 with the following comments: According to the provisions of Article 21.13 of China Civil Aviation Regulations Part 21 (CCAR-21), “eligibility of applicants for type certificates and type design approval”, those who have the capability in civil aviation product design are eligible to apply for type certificates or type design approval. Such requirement for “capability in design” was not incorporated in the current amendment to Annex 8 with respect to the requirement for Safety Management System (SMS). In CCAR-23 to CCAR-35, there are no requirements similar to SMS which can be applied to applicants for type certificates. Requirement for SMS in this Annex amendment has to be implemented through amendment to rules and regulations or issuance of policy guidance (advisory circulars or regulatory processes).

Colombia

(Note.— See appropriate partial language version of this AN-WP for original text.)

Definitions

Safety management system. ...and procedures: *The service provider, whether a State organization, a*

private organization, or a joint venture, shall implement the safety management system in accordance with the regulations created by the State for this purpose.

Safety programme. *...at improving safety. The State, as the authority, shall develop the safety programme.*

5.3 States shall require, as part of their safety programme, that ~~an organizations~~ responsible for ~~the aircraft~~ type design or final assembly ~~of an aircraft~~ and aircraft maintenance organizations or companies implement...

5.4 A safety management system shall clearly define lines of safety accountability throughout the type design or final assembly organization and the aircraft maintenance organization or company, including....

Appendix, Introduction. This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by ~~an organizations~~ responsible for ~~the aircraft~~ type design or final assembly ~~of an aircraft~~ and by aircraft maintenance organizations or companies. The framework ...

Note: In general, in each section of this amendment which reads “an organization responsible for the type design or final assembly of an aircraft”, add “and aircraft maintenance organizations or companies”.

Finland

(Secretariat’s note.— See comments by Austria above).

Part II, Chapter 5, paragraph 5.1, suggestion: “In order to achieve an acceptable level of safety in the certification and continuing airworthiness of aircraft a safety programme shall be established and implemented by States individually or collectively”.

France

(Note.— See appropriate partial language version of this AN-WP for original text.)

The links between the Chapter 5 obligations regarding safety management and the Chapter 4 obligations regarding continuing airworthiness (particularly those pertaining to Standard 4.2.1.1b) are not clearly explained. The safety responsibilities of organizations responsible for the type design are very different from those of production organizations. The appropriateness of an identical SMS should be reviewed.

5.1 ~~States shall establish a safety programme in~~ order to achieve an acceptable level of safety in the certification and continuing airworthiness of aircraft, a safety programme shall be developed and implemented by States individually or collectively (Clarification as to the requirements regarding system implementation on a regional level).

5.2 The acceptable level(s) of safety to be achieved shall be established ~~by the State concerned~~ and implemented by States individually or collectively (Clarification as to the requirements regarding system implementation on a regional level).

Germany

(Secretariat’s note.— See comments on paragraph 5.3 by Austria above).

Greece

(Secretariat's note.— See comments on paragraph 5.3 by Austria above).

Japan

Annex 8, Appendix, 1.6. As part of the SMS documentation, it should be accepted that organizations responsible for the type design or final assembly of aircraft incorporate SMS documents into their existing manual, if appropriate, instead of developing separate Safety Management Manual. From the point of view above, Japan would like to amend proposed text of Appendix, 1.6 as follows: “As part of the SMS documentation, the organization responsible for the type design or final assembly of aircraft shall develop a safety management manual (SMM) or incorporate its content into their existing manuals, and maintain them, to communicate its approach to safety throughout the organization.”

We consider that the applicability date of the amendment of Chapter 6 Helicopter Maintenance should be 18 November 2010, along with the applicability date of and Annex 8 amendment.

Latvia

(Secretariat's note.— See comments by Austria above).

Netherlands

(Secretariat's note.— See comments by Austria above).

United States

Section 5.3, change to: “States shall require, as part of their safety programme, that an organization responsible for the type design or final assembly of an aircraft implement a safety management system, throughout the lifecycle of the aircraft, acceptable...” The proposed changes to Annex 8 do not make clear that the SMS applies throughout the product lifecycle.

The introductory paragraph is designed to define which organization(s) must implement SMS. As currently written, multiple interpretations can be made as to which organizations are applicable. More clarification is necessary to ensure standard application of ICAO provisions. Revise these terms to more clearly define which organizations must implement SMS.

EUROCONTROL

Part I, introduces identical definitions as Section 1.1 of Annex 1, so that the comments to the said Section apply.

Part II, Chapter 5 is identical to Chapter 6, 6.2, so that the comments to the said Chapter apply.

The Appendix is identical to Appendix 4 of Annex 1, with the exception of the identification of the responsible organisation, i.e. *"an organisation responsible for the type design or final assembly of an aircraft"*, so that the comments to the said Appendix apply.

ICCAIA

For an organization responsible for the type design, which is commonly referred to as the TC holder, a conflict could arise between the SMS requirements of the State that originally approved the type design, and those of any other States that issue their own type design approval (based on the original approval by the State of Design). The State of Design SMS requirements should be the only ones the TC holder should be required to comply with. The TC holder should not be subjected to other requirements from other States that have issued their own type certificates for the product. Annex 8, Part II, Chapter 5, section 5.3 should therefore to be revised to read as follows: “States of Design shall require, as part of their safety program, that an organization responsible for the type design of an aircraft implement a safety management system acceptable to the State that, as a minimum ----.”

Clarification is needed as to what the “overall level of safety should apply to” for each of the various organisations/service providers concerned: training organisation, design or manufacturing organisation, operator, maintenance organisation. There is concern with the proposed language which seems to mean that an organisation responsible for the design or manufacturing of aircraft, in this example, has the responsibility for continually improving the level of safety of its products. The industry therefore believes the above requirement should be removed, or be restated to say: “aims to make continuous improvement in all safety processes, consistent with the level(s) of safety defined by the State concerned.” The generic formulation, identical in each of the Annexes, of the SMS requirements will entail the need to clarify the meaning of some terms when applied to design and manufacturing organisations (“operations”, “emergency plan”, etc).

Transposition of ICAO SMS requirements into individual States’ regulatory systems: for organisations responsible for the type design or final assembly of aircraft and for approved maintenance organisations, nearly all components and elements of SMS framework (as described in proposed Appendices to Annexes 1, 6, 8, 11 and 14) are currently present in approved organisations, either as part of applicable product certification or organisation approval requirements of many States, or as documented company internal voluntary safety management application policy procedures. The addition of extraneous SMS elements on top of the regulations will not increase aviation safety but may take the focus off the regulations and increase administrative and bureaucratic burdens without a real safety benefit. ICCAIA members would therefore recommend that individual States are encouraged to recognise the ‘best practice’ built into the existing organisations’ systems, and to show some flexibility in determining whether the SMS elements have been met, so that disruption of existing proven, complex, safety systems, and changes to State regulation systems, are kept to a minimum.

SECRETARIAT’S COMMENTS

(Secretariat’s note.— In view of the action hereunder proposed by the Secretariat regarding the proposed amendment to introduce harmonized safety management requirements in Annex 8, substantive comments on the subject are, except those made by ICCAIA, noted as a matter of record).

The Secretariat notes the comments by **Australia** to include a reference to the quality system as part of an SMS, to include “production” in the proposed requirements in Annex 8, Part II, Chapter 5, paragraphs 5.1 and 5.2, and that as constructed within Annex 8, the SMS requirements would not apply to engines or propellers.

The Secretariat notes the comment by **Austria, Finland, France, Greece, Latvia and Netherlands** regarding the establishment of the State safety programme and acceptable levels of safety collectively by States.

The Secretariat notes the comment by **Austria** that the proposed amendment to Annex 8 should reflect the fact that the design organization has much more possibilities to influence the overall safety level of a product than the production organisation. Similar comments were made by **China, Finland, France, Germany, Greece, Latvia, Netherlands, United States** and **ICCAIA**.

The Secretariat notes the comments by **Colombia** regarding to amend the definitions of SSP and SMS, Annex 8, Part II, Chapter 5, paragraphs 5.3 and 5.4 as well as to the introduction of the Appendix containing the ICAO SMS framework.

The Secretariat notes the comment by **United States** regarding the incorporation of the clause “throughout the lifecycle of the aircraft” to the proposed requirement in Annex 8, Part II, Chapter 5, paragraph 5.3.

The Secretariat notes the comments by **EUROCONTROL**.

The Secretariat notes the comments by **ICCAIA**, particularly, the view that incorporating the harmonized safety management requirements and the proposed ICAO SMS framework into Annex 8 will not increase aviation safety, but may take the focus off and increase administrative and bureaucratic burdens without a real safety benefit, thus disrupting existing proven, complex safety systems. It is worth noting that since the distribution of State letter AN 12/17-07/74, **ICCAIA** has expressed the concern of its membership about the proposed amendment to Annex 8 through different means. This has led the Secretariat to engage in further consultations with relevant sources, both industry and States, to obtain additional insights to reconsider the proposal to amend Annex 8 circulated through State letter AN 12/17-07/74. The conclusion reached is that aerospace manufacturing organizations must unquestionably have a management system that, insofar as production (*not* provision of services) is concerned, identifies and corrects *defects* (not so much as *safety risks*) and contributes to meet *specifications* during production. The Secretariat has concluded that aerospace manufacturing organizations have well-implemented management systems that allow such organizations to correct defects and meet specifications during production, thus meeting the intent of Annex 8. Under this perspective, the Secretariat recognizes merit in the comment by **ICCAIA** that the harmonized safety management requirements proposed for inclusion in Annex 8 hold the potential to increase administrative and bureaucratic burdens without a real safety benefit. In light of the above, the Secretariat is proposing to withdraw the proposal to amend Annex 8, Part I, Part II, Chapter 5, paragraphs 5.1, 5.2, 5.3, and 5.4, as included in the Attachment to State letter AN 12/51-07/74, pages C-2 to C-6. The Secretariat will engage in further consultations to determine the need for additional action on the subject, and report to the Air Navigation Commission accordingly.

ACTION PROPOSED

1. *Withdraw* the proposed amendment to introduce harmonized safety management requirements in Annex 8, Part I and Part II, Chapter 5, paragraphs 5.1, 5.2, 5.3, and 5.4 as included in Attachment to State letter AN 12/51-07/74, pages C-2 to C-8.

REFERENCE: Annex 11, Chapter 2, paragraph 2.27.
Attachment to State letter AN 12/51-07/74, pages D-2 to D-8

STATES' AND INTERNATIONAL ORGANIZATIONS' COMMENTS

Australia

Part 3.2 of Attachment F to Annex 11 on Safety Programs (which is replicated in other Annexes) the reference should be to the **State** establishing a mechanism to ensure the capture, storage, analysis and exchange of safety data, as opposed to just the CAA. In Australia a lot of this is managed through the accident investigation authority.

Austria

The following specific comments relate to particular amendments proposed for Annex 11

2.27.2 should be deleted. Paragraph 2.27 of Annex 11 applies to SMS by ATS providers. Establishment of acceptable levels of safety is a State responsibility (according to the text proposed by ICAO). Therefore it should be deleted from SMS and perhaps added to the requirements for the Safety Programme. This comment applies also to other Annexes (e.g. 1.5.2 in Annex 14).

Appendix 6, 1.6: The item “Documentation” should be deleted. No specific “SMS Manual” should be mandated. A provider might decide that only one Manual is appropriate for its organisation, in which case SMS provisions will be an integral part of it. The text should leave this freedom. As an example, providers may want to integrate Quality management and Security Management with Safety Management. It would seem that in such a case, three manuals could be needed under this provision. In addition to the danger from inconsistencies and unnecessary costs, there is no evidence of any safety benefit for this measure. Any new rule by ICAO should be backed by a Regulatory Impact Assessment which also applies to other Annexes.

Appendix 6, 3.1: A new sentence should be added: “Whenever possible, systematic analysis of available recorded digital data shall be carried out to identify potentially critical areas”. ATM today is largely digitized. Billions of data are recorded daily. Systematic analysis of automatically recorded data has proved to be a good practice by a number of air operators.

Appendix 6, 3.3: It is our understanding that the aim is to improve safety – not to improve SMS for its own sake. Therefore the text should be reworded to reflect this notion.

Attachment F, Introduction, 1.1 & 1.2: It is understood that the State safety programme will encompass all facets of aviation, not only the competent authority. To reflect this notion, the title should be amended to read “CAA aviation safety standards” and “CAA aviation safety responsibilities and accountabilities”, respectively. This comment applies to the entire the State Letter proposal, any amendments should be harmonized throughout the text.

Attachment F, Introduction: Propose to add new bullet point “1.5 International standardisation”. There is consensus in the aviation community that rulemaking alone is not sufficient. Standardisation of actual implementation is also necessary, as already practiced by ICAO (USOAP), EUROCONTROL (ESIMS) and EASA (standardisation inspections). The procedures for receiving inspections, recording findings and the related corrective action plans should be documented. This comment also applies to other Annexes.

Attachment F: In line with the above comments in paragraph 6, the following new paragraph should be added: “1.5 International standardisation. The State has procedures to accept audits or standardisation visits by ICAO or by regional safety Organisations. It also has procedures in place to develop, update, implement and document findings and subsequent corrective actions.”

Attachment F, 2.1: The proposed text by ICAO is incompatible with EU Community law (EC Regulation 2096/2005 re. common requirements for the Single European Sky). The Agency proposes the following amendment to accommodate EU legislation, as well as other solutions: “~~The CAA has established the controls which~~ Rules and procedures to govern how service providers will identify operational hazards and ~~manage how~~ safety risks are established and applied in the State”.

Attachment F, 2.2: The proposed text by ICAO is incompatible with EU Community law above mentioned in paragraph 8. The following modification would allow States, collectively or individually, to choose different solutions, all providing an equivalent level of safety: "... *The agreed acceptable levels of safety are expressed by multiple safety performance indicators and safety performance targets, never by a single one, ~~as well as~~ and/or by safety requirements ...*". This comment also applies to other Annexes.

Attachment F, 4.1: In line with good practice already established by a number of States, the addition of the following text should be considered: "... Obligation to provide training shall be for the States. Accident investigation staff which is not part of the CAA, shall also be covered by the training requirement".

Colombia

(Note.— See appropriate partial language version of this AN-WP for original text.)

Attachment F, 1.3

1.3 Management of Accident and incident investigation recommendations

The State has established an independent accident and incident investigation process, the sole objective of which is to support the management of safety in the State and not the apportioning of blame on [sic] liability.

If prevention is to involve greater responsibilities with regard to the SMS, this process should be considered safety management, and each State should have a safety management organization (group, office, unit, etc.). We, as a State, propose that accident prevention processes be changed so that they are henceforth known and framed as safety management processes.

States shall implement a safety management system which shall contain the State safety programme. For this purpose, a strategic plan shall be developed which will make it possible to design a safety strategy within a perspective which will provide a timeframe for the achievement of acceptable State levels of safety.

The above is based on the respective definitions of "safety programme" and "safety management system". The State is thereby assured of the requirement of a strategy for service providers and also of the implementation of a strategy of the State itself.

Czech Republic

3.1: *The safety reporting procedures related to safety performance and monitoring shall clearly indicate the conditions under which immunity from disciplinary action would be considered is ensured.* In our opinion this requirement would lead the providers to be obliged to implement formally:

- a) Recording of the survey of activities which would not comply with the prescribed directives or instructions valid for the execution of the duties and would be conceived as unacceptable. This would lead to decreasing of the safety and degrade the power of service standards.
- b) Precise assignment of what cannot be accepted. This is a fundamental legal step to the current principals. Moreover it is a question if we are able to specify all types of not acceptable behaviour in critical situations.

Finland

(Secretariat's note.— See comments by Austria).

France

(Note.— See appropriate partial language version of this AN-WP for original text.)

Attachment F, Introduction: This attachment introduces a framework for the implementation and maintenance of a State's safety programme by a State **States individually or collectively** (Clarification as to the requirements regarding system implementation on a regional level).

Attachment F, 1.1: ~~The State has promulgated a~~ **A suitable** national legislative framework and specific **applicable** regulations **have been published** to ensure compliance with international and national standards, and ~~that to~~ define ... (Clarification as to the requirements regarding system implementation on a regional level).

Attachment F, 3.1: ~~The CAA has established in~~ **Mechanisms are established and put in place in States** to ensure... (Compatibility with Community regulations).

Attachment F, 3.2: ~~The CAA has established in~~ **Mechanisms are established and implemented in States** to ensure the capture and storage of data on operational hazards and safety risks at an aggregate State's level. ~~The CAA has also established in~~ **Mechanisms are established and implemented in States** to develop... (Clarification as to the requirements regarding system implementation on a regional level).

Germany

In the light of clear and unambiguous wording we propose review the "Framework for Safety Management (SMS)" in respect to phrases not conflicting with already existing regulation, e.g. EC Regulations. To underline the above mentioned statement we proposed to reconsider the following headlines and phrases:

2. ~~Safety risk management~~ Safety Monitoring: Para 2 does not refer to safety risk management, but to safety monitoring. E.g.: "...develop and maintain a formal process for effectively collecting, recording, acting and generating feedback safety data collection."

3.3, 4.1 and 4.2: there is no clear differentiation between "safety" and "SMS", therefore there is space for interpretation if the requirements are referred to "operational safety" or "safety management".

4.1, propose: "*The air traffic services provider shall develop and maintain a **safety management training programme** that ensures that personnel are trained and competent to perform the SMS duties.*"

Greece

(Secretariat's note.— See comments by Austria).

Latvia

(Secretariat's note.— See comments by Austria).

Netherlands

(Secretariat's note.— See comments by Austria).

Russian Federation

(Note.— See appropriate partial language version of this AN-WP for original text.)

The proposed point 1.3, Attachment F, Annex 11 defines the objective of investigation as “**ensuring flight safety management in the country**”, which diverges from the definition in the existing section 3.1, Annex 13, in which the sole objective of investigation is “to prevent aircraft accidents and incidents in the future”. The wording of two new points 3.2 and 3.3 and of the Note, which were proposed as additions to Annex 13 to be inserted immediately after point 3.1, as well as the difference in definitions noted above, could lead to an incorrect understanding of the role and responsibility of the agency conducting the independent investigation, and place it in a position subordinate to the Civil Aviation Authority, which, in fact, is responsible for **ensuring flight safety management in the country**. It would appear expedient to amend point 1.3, Attachment F, Annex 11 so as to bring it into line with the existing point 3.1, Annex 13. Also in Attachment F, Annex 11, it would be expedient to add a provision to the Introduction that clearly delineates the functions and responsibility of the agency responsible for the independent investigation and those of various organisations that provide services, including the Civil Aviation Authority, which are entities implementing the concept of flight safety management. In this context, the Russian Federation does not agree with the proposed wording of the Recommendation in Section 8.6, which covers functions carried out by the agency responsible for an independent investigation as well as by the Civil Aviation Authority.

Proposed revisions:

1. Change point 1.3, Attachment F, Annex 11 so as to bring it into line with point 3.1, Annex 13.
2. Add the following to the Introduction to Attachment F, Annex 11: The present attachment sets out a conceptual framework for the adoption and implementation by the State of the State flight safety programme.

[highlighted text] The implementation of such programme may require the coordination of the efforts of the Civil Aviation Authority, service providers and agencies responsible for conducting independent accident and incident investigation. The State should establish a program implementation procedure that will guarantee the complete independence of the agency responsible for conducting accident and incident investigations from the functions of regulation, monitoring and control of measures to be implemented, which are carried out by the Civil Aviation Authority.

This conceptual framework includes 4 components and 10 elements as described below.

Saudi Arabia

1.1 Management commitment and responsibility. The air traffic services provider shall ensure that all Staff involved in the provision of ATS services are adequately trained and competent for the tasks assigned. Therefore, it is recommended to re-draft 1.1 to include a clear indication related to Staff Competency, e.g. insert in fourth line the following: ... include a clear statement about the provision of the necessary qualified human and financial

1.4 SMS implementation plan. The implementation plan is required mainly for the definition and planning of SMS implementation. The organization's approach to manage safety should be indicated in the first component (Safety policy and objectives). Moreover, all the components of the SMS implementation plan will be detailed in the Safety Management Manual. Therefore, it is proposed to review the brief description of paragraph 1.4 to clearly indicate that SMS implementation is only required for the initial phase and that it should not be maintained.

1.5 Coordination of emergency response planning. The contingency plan is a requirement under Annex 11 (Annex 11, 2.29 and Guidance material relating to the development, promulgation and implementation of contingency plans is contained in Attachment D).

3.1 Safety performance monitoring and measurement. The safety performance monitoring and measurement of Air Traffic Services occurrences requires that all safety occurrences to be reported and assessed, all relevant data to be collected and all lessons to be disseminated. But if no data is received because people are afraid of the consequences, this entire process stops. Therefore, it is proposed to emphasize on the mandatory and voluntary reporting scheme (Section 2.4 of Air Traffic Management (Doc 4444, PANS-ATM) should be indicated as a reference). Moreover, safety data should be recorded, kept and periodically reviewed in order to detect any adverse trend in the number and types of ATS occurrences. Consequently, it is proposed to add two elements to the Safety assurance component in order to cover ATS reporting scheme and Safety data records. These elements shall take into account the PANS indicated in Chapter 2, Doc 4444 – PANS-ATM.

United Kingdom

Annex 11, Attachment F defines the Framework for the State's Safety Programme (SSP). It is not clear to us why this Framework has the status of an Attachment to an Annex, whereas the Framework for Safety Management Systems (SMS) is an Appendix to an Annex. This means that a State is under no legal obligation to follow the framework detailed in the Attachment whereas it is under a legal obligation to follow the Appendix. We suggest that, the Framework for the SSP should be upgraded to an Appendix to Annex 11. Hence, we propose 'Attachment F' in Annex 11 to be changed to 'Appendix xx' in Annex 11.

In addition, as Notes in Annexes do not have the same legal status as a Standard, all cross-reference to the Annex 11 Framework for SSP should be changed from Notes to be included in the Standard. For example, typical text could be changed to read: "States shall require, as part of their safety programme, as outlined in Appendix XX to Annex 11, that an (entity) implement a safety management system acceptable to the State concerned...."

CANSO

CANSO believes the proposed amendments introduce an additional layer of safety requirement into the operational environment that will lead to improved safety management. The proposed amendments introduce a framework for SMS, which are broadly consistent with the safety management systems introduced by CANSO Member ANSPs. The proposed amendments are a significant improvement to the existing guidance material and therefore CANSO endorses the proposed changes.

2.27.2: The acceptable level of safety should be established through dialogue and consultation between the regulator and service provider.

1.1: "*The air traffic services provider shall define the organization's safety policy ~~and~~, which....*" Text strike-out recommended.

1.4: The requirement for SMS coordination could potentially be very onerous and difficult to meet. At best, an ANSP can seek to ensure that parties it interfaces with in the provision of air navigation services do maintain an SMS of their own. More appropriately, such assurance should rest with the safety regulator.

1.6: The requirement to develop and maintain an SMM is prescriptive, whereas there may be other more effective means of communications such as on-line tools, etc., for documenting and communicating the SMS.

2.1: The chosen methods of identifying risks may depend on culture, industry best practice and compliance. Common risk identification methods could include scenario-based risk identification, objectives-based risk identification, source and problem analysis, etc. The ANSP should determine which methods best meet their requirements.

2.2: *“The air traffic services provider shall develop and maintain a formal risk management process that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level.”* The elements of the text that are underlined and in brackets are felt to be prescriptive and unnecessary.

2.2: Decisions regarding safety risk tolerance should ultimately be made by the ANSP’s governance structure, i.e. senior management and its supervisory board.

3.1: *“The safety reporting procedures related to safety performance and monitoring shall clearly indicate which types of operational behaviours are ~~acceptable or unacceptable~~...,”* It should only be necessary to indicate what type of activities is deemed unacceptable.

3.3: The causes for sub-standard performance cannot always be eliminated. “Mitigate” would be a more appropriate word.

4.1: The emphasis should be on safety **management** as SMS is a systematic, proactive, and transparent approach to managing safety and is an integral part of an organization’s business activities.

2.1: *“The CAA has established the controls which ~~govern how~~ assess whether service providers have the necessary processes in place ~~will to~~ identify operational hazards and manage safety risks.”* The State safety regulatory authority should not govern “how” service providers will identify operational hazards and manage safety risks, as that would be prescriptive. However, the State should require service providers to have the necessary processes in place.

2.1: *“The requirements and specific operating regulations are periodically reviewed ~~in order to ensure~~ assess their on-going ~~they remain relevant~~ relevancy and appropriateness to the service providers.”* The word “ensure” should be avoided as it could entail intrusive measures or actions on the part of the safety regulator where the lines of responsibility and accountability become blurred. The safety regulator has the responsibility to provide proper oversight.

2.2: The levels of safety should be deemed to be acceptable by the safety regulator, based on evidence of a robust SMS.

2.2: When establishing and agreeing to the acceptable levels of safety, the emphasis should be on safety requirements and safety performance targets. The choice of the safety performance indicators should be limited to those indicators that are true measures of safety performance. However, this need not be addressed in this section.

EUROCONTROL

The Note to 2.27.1 and Note 1 to 2.27.4 now clearly refer to the framework for implementing and maintaining a State's safety programme in Attachment F, and the framework for implementing and maintaining an SMS in Appendix 6. More importantly though, are the contents of Note 2 to 2.27.4. No doubt the inclusion of this Note stems from the experience gathered in USOAP audits and the difficulties to unambiguously clarify what is meant by "the State". On most if not all occasions this is not clear, i.e., the CAAs are not always referred to (either explicitly or implicitly); specialized domains such as SAR or MET do not always come under the authority of the MoT (meaning that oversight activities can/should be done by their respective Ministries), or are undertaken by independent bodies, and the CAAs rarely ever have sufficient knowledge and/or competence in these areas. By explicitly referring to the applicability of 2.27.3 and 2.27.4 to services provided by entities other than an ATS provider, an important gap has been filled from the safety auditing perspective.

Attachment F is based to a certain extent on Appendix 6, but details the responsibilities of the State as regards the setting of safety standards, enforcement policies, safety assurance, etc. Generally speaking, its contents reflect the basic concepts of ESARR 1, c.q. Regulation (EC) N°. 1315/2007. As was the case with Appendix 4 to Annex 1, and the associated comments re ESARRs 3 and 4 as well as the Common Requirements, a thorough mapping of the two sets of texts is required to fully appreciate the differences between this Attachment and the relevant European regulations.

SECRETARIAT'S COMMENTS

The Secretariat agrees with the comment by **Australia** that the correct reference in element 3.2 of the proposed ICAO SSP framework should be to the State and not to the CAA.

The Secretariat notes the comment by **Austria** regarding the deletion of Annex 11, Chapter 2, paragraph 2.27.2. A similar comment was made by **Finland, Greece, Latvia** and **Netherlands**. The Secretariat believes that action being proposed addresses the comment.

The comment by **Austria** regarding analysis of recorded digital data is noted. A similar comment was made by **Finland, Greece, Latvia** and **Netherlands**. Nothing in the existing proposal denies the possibility of such analyses.

The Secretariat notes the comment by **Austria** regarding continuous improvement of the SMS. A similar comment was made by **Finland, Greece, Latvia** and **Netherlands**. It is broadly recognized, and so reflected in Chapter 7 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*, that basic quality principles underlie many of the processes in SMS, and continuous improvement of the SMS is one such basic principle.

The Secretariat agrees with the comment by **Austria** that the correct reference in elements 1.1 and 1.2 of the proposed ICAO SSP framework should be to the State and not to the CAA. A similar comment was made by **Greece, Latvia** and **Netherlands**.

The Secretariat notes the comment by **Austria** regarding the introduction of a new element "International standardization" in the proposed ICAO SSP framework, and the language proposed. A similar comment was made by **Greece, Latvia** and **Netherlands**. Element 1.1 of the proposed ICAO SSP framework already addresses this basic responsibility of Contracting States signatories of the Convention on

International Civil Aviation. Elements 1.1, 3.1, 3.2 and 3.3 include the activities specified in the comment.

The Secretariat notes the comment by **Austria** regarding an incompatibility between the proposed text in the ICAO SSP framework, elements 2.1 and 2.2, and EU Community law. A similar comment was made by **Greece, Latvia, Netherlands, and CANSO** regarding element 2.2. In general, wide-ranging concerns about compatibility or its lack thereof with EU Community law, encompassing different aspects of the proposed amendment in total, were expressed in comments by European States. The Secretariat has proposed, to the extent possible, action to address such concerns.

The Secretariat notes the comment by **Austria** to add text to element 4.1 of the ICAO SSP framework. A similar comment was made by **Greece, Latvia and Netherlands**. The addition proposed is inherent in the existing text.

The comment by **Colombia** proposing that accident prevention be framed as safety management processes is noted. The Secretariat believes the comment should be considered within the context of the discussion in paragraphs 3.3 through 3.9 of AN-WP/8332.

The comments by **Czech Republic** are noted. The Secretariat believes that Attachment E to Annex 13 provides the necessary guidance to address the comments.

The Secretariat agrees with the comments by **Finland** proposing amended text in the proposed ICAO SSP framework, introduction and element 1.1, to accommodate implementation of the SSP either at regional or individual State level. Similar comments were made by **France** on the introduction and elements 1.1, 3.1 and 3.2 of the proposed ICAO SSP framework, based upon considerations of compatibility with Community regulations. With regard to the European situation, the Secretariat is mindful of the developing regional regulatory environment under which European States operate. Nevertheless, in proposing action or refraining from it, the Secretariat must also be mindful of the circumstances under which all Contracting States in all regions operate, and the obligations and responsibilities of all Contracting States as signatories to the Convention on International Civil Aviation.

The Secretariat notes the comment by **Germany** regarding safety risk management *vis-à-vis* safety monitoring. Technically, safety risk management, expressed in terms of hazard identification and risk assessment and mitigation, is an initial, one-off design activity, as proposed in the ICAO SMS framework. Safety performance monitoring is a continuous activity, conducted under safety assurance.

The comment by **Germany** regarding lack of clear differentiation between safety and SMS in elements 3.3, 4.1 and 4.2 of the ICAO SMS framework is noted. However, the Secretariat believes it is clear that element 3.3 refers to *SMS* continuous improvement, while elements 4.1 and 4.2 refer to *safety* training.

The Secretariat notes the comment by **Germany** to make specific reference to a safety management training programme in element 4.1 of the proposed ICAO SMS framework. A similar comment was made by **CANSO**. Such specificity, however, might unduly restrict the scope of the safety training delivered.

The Secretariat notes the comments by **Russian Federation** regarding Attachment F, introduction and element 1.3. Similar comments regarding to either the proposed ICAO SSP framework or the proposed amendment to Annex 13 were made by **France, Singapore and United States**. The comments are addressed both, under general comments, as well as Annex 13 and action proposed.

The Secretariat notes the comment by **Saudi Arabia** that ensuring staff competency is a management responsibility, and believes that discussions included in guidance material adequately cover the subject.

The Secretariat notes the comment by **Saudi Arabia** about contingency planning as a requirement already existing in Annex 11.

The comment by **Saudi Arabia** to include ATS reporting schemes and safety data records as elements to the safety assurance component of the ICAO SMS framework is noted. The subject is discussed in Chapter 9 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The proposals by **United Kingdom** to upgrade Attachment F to the appendix, as well as to introduce the Note supporting the Standards regarding the State safety programme in all Annexes into the body of the Standard itself are noted. The Secretariat believes however, that these comments must be considered within the context of the discussion presented in paragraphs 3.3 through 3.9 of AN-WP/8332.

The Secretariat agrees with the comment by **CANSO** regarding Annex 11, 2.27.2.

The Secretariat notes the editorial by **CANSO** in the proposed ICAO SMS framework element 1.1.

The comment by **CANSO** on element 2.1 of the ICAO SMS framework is noted. However, the element only exemplifies the possible methods of safety data collection. Nothing in the proposed text denies a service provider to choose the methods that best meet its requirements.

Regarding the comment by **CANSO** on element 2.2 of the ICAO SMS framework, the text [underlined] is intended to be explanatory and not prescriptive.

The Secretariat agrees with the comment by **CANSO** on element 3.1 and 3.3 of the ICAO SMS framework.

The Secretariat notes the comments by **CANSO** on element 2.1 of the ICAO SSP framework. Establishing governing controls and ensuring their continued relevancy are responsibilities inherent to the State, whatever the language of preference.

The Secretariat notes the comment by **CANSO** regarding safety requirements, safety performance targets and safety performance indicators. The subject is included in Attachment E to Annex 11 as well as in Chapter 6 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The Secretariat notes the comments by **EUROCONTROL**.

ACTION PROPOSED

(Secretariat's note.— The Secretariat is proposing an editorial alignment to the definition of safety programme).

1. Amend Annex 11, Chapter 1, Definitions to read as follows (new amendment underlined):

...
State safety programme. An integrated set of regulations and activities aimed at improving safety.

2. Amend Annex 11, Chapter 2, paragraph 2.27.1 to read as follows:

2.27.1 States shall establish a State safety programme, in order to achieve an acceptable level(s) of safety performance in the provision of ATS.

3. Amend Annex 11, Chapter 2, paragraph 2.27.2 to read as follows (new amendment underlined):

2.27.2 The acceptable level(s) of safety performance to be achieved shall be established agreed by between the State's State concerned and the air traffic service provider.

Note 1.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F, and ~~Guidance on a State's safety programmes~~ is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety performance in Attachment E.

Note 2.— Guidance on defining acceptable level(s) of safety performance is contained in Attachment E and in the Safety Management Manual (SMM) (Doc 9859).

4. Amend Annex 11, Chapter 2, paragraph 2.27.3 to read as follows:

2.27.3 States shall require, as part of their State safety programme, that an air traffic services provider implements a safety management system acceptable to the State that, as a minimum:

...

- b) ensures that remedial action necessary to maintain ~~an~~ acceptable level(s) of safety performance is implemented;
- c) provides for continuous monitoring and regular assessment of the ~~safety~~ acceptable level(s) of safety performance achieved; and
- d) aims ~~to make at a~~ continuous improvement ~~to~~ of the overall ~~acceptable~~ level(s) of safety performance of the safety management system.

5. Amend Annex 11, Attachment E, to read as follows:

ATTACHMENT E. ACCEPTABLE LEVEL(S) OF SAFETY PERFORMANCE

1. Introduction

1.1 The introduction of the concept of acceptable level(s) of safety performance responds to the need to complement the prevailing approach to the management of safety based upon regulatory compliance, with a performance based approach that aims for continuous improvement to the overall level of safety performance.

1.2 Acceptable level(s) of safety performance expresses the safety goals objectives of ~~an oversight authority~~ a State safety programme (SSP), ~~an operator~~, or a ~~services provider~~ safety management system (SMS). From the perspective of the relationship between oversight authorities and operators/services providers, it provides the minimum safety objective(s) acceptable to the oversight authority to be achieved by the operators/services providers while conducting their core business functions. It is a reference against which the oversight authority can measure safety performance.

1.3 Establishing acceptable level(s) of safety performance for the State safety programme

does not replace legal, regulatory, or other established requirements, nor does it relieve States from their obligations regarding the Convention on International Civil Aviation and its related provisions.

1.4 Establishing acceptable level(s) of safety performance for the safety management system does not relieve operators/services providers from their obligations under relevant national regulations and the Convention on International Civil Aviation.

2. Scope

2.1 Within each State, different acceptable level(s) of safety performance may be established are agreed between the oversight authority and individual operators/services providers.

2.2 Each agreed established level of safety performance should be commensurate with the complexity of individual operator/service providers operational contexts, and the level to which safety deficiencies can be tolerated and realistically addressed.

REFERENCE: Annex 13, Chapter 1, Chapter 3, paragraphs 3.2 and 3.3; Chapter 8, paragraphs 8.1, 8.2, 8.3, 8.4 8.6 and 8.9
Attachment to State letter AN 12/51-07/74, pages E-2 to E-3

STATES' AND INTERNATIONAL ORGANIZATIONS' COMMENTS

Australia

Chapter 3, Australia agrees with the intent of the changes but makes the following suggestions for presentation of the text. The text of the 'State's Safety Programme' is the first item in the Chapter. A new paragraph 3.4 could then read 'The establishment of an independent accident and incident process is part of the framework for the State's safety program'. Then followed by 'Objective of the Investigation'. Presentation of the text in this order and with the additional suggestion seems to be more logical and provides a segue to 'Objective of the Investigation', otherwise it is lacking in context.

Austria

New Standard 3.2 refers to "an" acceptable level of safety, however, proposed Standard 3.3 refers to level(s) of safety. Is there one or are there several levels. As this text is in a Standard, it must be clear and unambiguous.

Standard 8.3: Maintenance of the old text is supported, but it might be helpful to also protect the sources of mandatory incident information.

New Standard 8.4: An obligation to include voluntary reports in the same data base as mandatory reports is inappropriate as the amount and quality of the data differs. Data bases from voluntary incident reports must be separate from those for mandatory incident reports/accident reports/serious incident reports, in order to ensure proper analysis and to avoid the perception that confidentiality of the data which have been provided voluntarily may be compromised. ICAO should consider removing the text "... **including that from its incident reporting systems**..." and develop a separate provision.

Deleted Standard 8.6: There does not seem to be a need to delete this Standard. The new material only speaks of "facilitating effective analysis" not of actually mandating that such analysis be carried out as required by the old text.

Recommendation 8.6: Suggest to delete "... **implement these actions and** ..." as it seems unnecessary to

recommend that a required safety action should be implemented.

Recommendation 8.9: Suggest deleting the addition of the words “.. ~~as part of its safety programmes~~ ...” as it does not add anything to the recommendation but may lead to confusion instead. If retained, the grammar should be corrected from “its” to their” as the subject of the sentence “States” is in plural.

Colombia

(Note.— See appropriate partial language version of this AN-WP for original text.)

3.2 States shall establish a safety programme in order to achieve an acceptable national level of safety. This shall be established through an agreement between the State and the organizations, which, in turn, shall develop their own acceptable levels of safety and align them with those of the State.

Chapter 8 should be re-named State Safety Management.

Paragraph 8.6 should not be a recommendation, since preventive actions are the result of the recommendations which follow accident investigation. Since the State’s programme and the SMS seek the improvement of the acceptable levels of safety, which govern their access, it is important to apply these actions and ensure that the process of managing recommendations is effective and really contributes to continuing improvement.

Egypt

As for Annex 13, (Chapter 8) concerning Accident Prevention Measures, we agree with the proposed amendment, while adding a recommendation to the item 8.4, providing that “following the effective analysis of information obtained from the accident and incident database and ADREP, the State should, as part of its safety programmes implement the proposals and recommendations of the relevant accident and incident prevention entity, and inform such entity of measures taken to implement them.”

Finland

Chapter 8, 8.3: Maintenance of the old text is supported, but it might be helpful to also protect the sources of mandatory incident information.

France

(Note.— See appropriate partial language version of this AN-WP for original text.)

The proposed changes might result in a loss of the overall effectiveness of accident prevention systems by reducing the areas of feedback from three to two. They also risk weakening the notion of the independence of the forensic investigation. At this stage, the Accident Investigation Board (BEA) has serious reservations regarding the amendments specific to Annex 13, which aim to make the responsibility for accident and incident investigation part of the State’s safety programme.

That the maturity, the advantages, and the progress of the safety management system proposed by ICAO was able to be discussed is fundamental. Certain statements such as, notably, those regarding the data analysis referred to in paragraph 8.4 of Annex 13, are premature, given that the aeronautical community can, at present, have a lack of distance in respect of database-related analyses. The changes proposed are based on concepts which appear promising but which have not yet been proven (on a macroscopic scale) in the sphere of aviation. The preliminary work undertaken by the BEA in collaboration with the FAA and international organizations has already revealed certain limits to the use of databases, while bringing to light interesting perspectives for the continuing improvement of feedback systems.

It is worth remembering that at the 36th Assembly, safety investigation-related matters were all postponed until the AIG 2008 meeting, scheduled to take place from 13 to 18 October 2008. It thus seems logical to do the same for the aspects of the safety management system (SMS) which parts of Annex 13 modify.

The framework for the State's safety programme, proposed in Attachment F to Annex 11, defines the component relating to accident and incident investigations as "an independent accident and incident investigation process, the sole objective of which is to support the management of safety in the State and not the apportioning of blame on liability", suggesting that an advantage of including this attachment in Annex 13 would be the strengthening of provisions to better keep safety investigations separate from administrative or legal actions. In reality, this inclusion of investigations in the State's safety programme could inadvertently weaken the independence of the investigation organization, which is stipulated in Standard 5.4 of Annex 13. More specifically, ICAO Doc 9756 (Part I – *Organization and Planning*) describes the accident investigation authority as an organization having independent status or as an organization that is separate from the civil aviation authority. The new paragraphs proposed in Annex 13 (3.2 and 3.3) introduce a degree of confusion, making no mention of the maintaining of an impartial and independent investigation authority.

The proposal for paragraph 8.4 has negative consequences for this comprehensive framework in which the forensic investigation is directly integrated into the State's safety programme. It should be emphasized that numerous challenges remain in the collection of and, especially, the validation of incident information found in State databases. Experience shows that when investigation tools are used in the case of a serious incident, it then becomes possible to determine the causal factors of the incident. The notion of independence and the separation of roles (investigation and control) encourages those involved to participate and corroborate information so that it may then be fed into databases such as ECCAIRS. It is difficult to make use of incidents which have not had this validation process. Moreover, those incidents which are voluntarily reported are of little statistical value. Nevertheless, it is worthwhile making use of their human factors-related aspects as a complement to a detailed investigation.

Lastly, the proposed change to paragraph 8.9, which incorporates the exchange of safety information into the framework of the State safety programme, may limit the flow of this exchange and affect the beneficial complementarity of the areas of feedback.

Germany

(Secretariat's note.— See comments by Austria).

Greece

(Secretariat's note.— See comments by Austria).

Latvia

(Secretariat's note.— See comments by Austria).

Netherlands

(Secretariat's note.— See comments by Austria).

Russian Federation

(Note.— See appropriate partial language version of this AN-WP for original text.)

[Suggest following text] 8.6 *Recommendation.*— *In the framework of its flight safety programme, having taken into consideration the actual and potential safety deficiencies identified, including those relating to the results of accident and incident investigation, the Civil Aviation Authority shall, in conjunction with the relevant service providers, determine tangible preventative measures, establish a process for monitoring the effectiveness of these measures, and inform the agency responsible for conducting investigations of their implementation.*

Point 6 of letter AN 12/51-07/74 dated 7 December 2007 indicates that the changes to Annex 13 presented for review provide for States to be responsible for the investigation of both aircraft accidents and incidents. In this regard, the proposed upgrade of Recommendations 8.2 and 8.4 to the level of Standards cannot be considered sufficient without making corresponding changes to Recommendation 5.1.1 and, Attachment C to Annex 13. As explained in the first sentence of 1.4.2. of the *ADREP Manual* (Doc 9156-AN/900), the State is not required to conduct incident investigations.

Therefore, in agreeing to the changes to Annex 13 proposed by ICAO, we feel it is necessary to make the following comments:

1. ICAO should consider changing the definition of the term “incident” in Annex 13 with the aim of establishing clearer criteria for classifying events in the “incident” category.
2. ICAO should consider including in Annex 13 a Standard on Mandatory Investigation of Incidents or upgrading Recommendation 5.1.1 to the level of a Standard.
3. ICAO should substantially broaden the list of events contained in Attachment C to Annex 13, not limiting it merely to examples of serious incidents.
4. In addition to the proposed changes to Annex 13, ICAO should take into consideration the necessity of introducing changes to section 1.4 “Incidents”(first sentence of point 1.4.2) of the *ADREP Manual* (Doc 9156-AN/900).

Singapore

3.2 and 3.3, Disagreement with comments. Singapore agrees that States shall establish a safety programme and shall, through CAA regulatory action, require their service providers to establish a safety management system (SMS). Singapore understands that the safety programme is to be established principally by the State CAA. As such, Singapore is of the view that, to the extent that independent investigation units in States are neither a regulator nor a service provider, there is no need for the proposed paragraphs 3.2 and 3.3 to be introduced in Annex 13. It would suffice to have a note in Annex 13 to provide a cross-reference to the proposed new Attachment F to Annex 11, the subject of an amendment proposal in Attachment D to ICAO State Letter 2007/74.

United States

With regard to the proposed amendments specific to Annex 13 -- establishing the responsibility for accident and incident investigation as an element of a State’s safety program -- the United States is concerned that the proposed language does not adequately distinguish the independent role of accident investigation authorities (AIB) with respect to aeronautical authorities (CAA). The proposed amendments need additional clarifying information regarding expectations for distribution of functions among State functional organizations to support efficient and effective flow of information and responsibilities in order to maintain the required independence of the accident investigation function. Consequently, we disagree

with certain changes impacting Annex 13 in this proposal. In our response, we propose additional language which address our concerns.

Further, the United States believes that any proposed integration of investigation and analysis functions with the implementation of responses would contaminate the independence of accident investigation authorities with regard to CAA functions. Finally, the United States believes that the implementation of preventive actions and establishment of processes to monitor the implementation and effectiveness of responses should be clearly identified in any change to Annex 13 as responsibilities of the State's CAA.

8.1, 8.2, 8.3, Page E-2 : While reporting incidents is important, safety reporting systems can and should be more comprehensive and analytical than anecdotal incident reports. Certificated organizations should be required to have in place the mandatory reporting of: 1) hazards that exceed specified risk thresholds, 2) appropriate levels of analysis, as well as 3) implemented controls and effectiveness monitoring. The section should capture this need for expanded safety reporting. If incident reporting systems are expected to include this expanded scope, there needs to be more discussion of the definition of "incident" and it must be broad enough to ensure comprehensive reporting.

8.1:A State shall establish, as part of its safety programme, a mandatory incident reporting system, **or collection of systems as appropriate**, to facilitate collection of information on actual or potential safety deficiencies.

8.2:A State shall establish, as part of its safety programme, a voluntary incident reporting system, **or collection of systems as appropriate**, to facilitate collection of information on actual or potential safety deficiencies that may not be captured by the mandatory incident reporting system.

Para 8.4: A State shall establish, as part of its safety programme, an accident and incident database, **or collection of databases as appropriate**, to facilitate the effective analysis of information on actual or potential safety deficiencies obtained and therein contained, including that from its incident reporting systems, **to identify safety deficiencies that may require preventative actions**.

Recommendation. Add a note following Para 8.6 to Clarify the position and responsibilities of the independent accident investigation authority with regard to the aeronautical authority in a State safety program:

Note — The responsibility for identifying safety deficiencies requiring action, the determination of preventative actions required in response to identified safety deficiencies, the implementation of those actions, and the processes for monitoring the implementation and effectiveness of responses may require the coordination of multiple authorities within a State. The distribution of those responsibilities, as part of a State safety programme, shall maintain the independence of the accident and

(Secretariat's note.— there appears to be text missing in the reply as received).

CANSO

Page E-2, 8.1 and 8.2: To avoid confusion and potential overlaps of responsibility, when referring to the "State", it would be useful to indicate what appropriate body or mechanism should undertake to establish a reporting system.

EUROCONTROL

8.1 now explicitly states that a mandatory reporting scheme "shall" be part of a State's safety programme, while 8.2 adds that "a State shall establish, as part of its safety programme, a voluntary incident reporting system (...)". In doing so, further alignment with the European reporting principles has been achieved. Furthermore, the establishment of database systems to facilitate analysis in order to determine preventive actions has become a requirement. However, the processes to monitor the implementation and effectiveness of preventive actions remain at the level of a recommendation. With regard to the status in Europe, it should be recommended that this too becomes a standard.

SECRETARIAT'S COMMENTS

The Secretariat agrees with the comment by **Australia**, and is proposing action in the context of the proposed ICAO SSP framework, to avoid amending the main body of Annex 13 beyond what is essential for the purposes of the present proposal.

The Secretariat agrees with the comment by **Austria** about the need for clarification regarding Standards 3.2 and 3.3. The same comment was made by **Germany, Greece, Latvia** and **Netherlands**.

The Secretariat notes the comment by **Austria** about protecting sources of mandatory incident information. The same comment was made by **Finland, Germany, Greece, Latvia** and **Netherlands**. Mandatory incident reporting systems are explicitly included under safety data collection and processing systems (SDCPS) in Annex 13, Attachment E, 1.5.d) 2).

The Secretariat agrees with the comment by **Austria** regarding the new proposed Standard 8.4, about the inappropriateness of including voluntary safety reports in the same data base as mandatory reports. The same comment was made by **Germany, Greece, Latvia** and **Netherlands**. Nothing in the proposed Standard directs States to integrate voluntary and safety reporting databases. Furthermore, the language of the proposed Standard on the subject is the same as the one already in the existing Recommendation 8.4.

The comment by **Austria** regarding the proposed deletion of existing Standard 8.6 is noted. The same comment was made by **Germany, Greece, Latvia** and **Netherlands**. However, the proposed Standard 8.4 represents a consolidation of former Standards 8.4 and 8.6 into a single Standard. This consolidation is a consequence of the preliminary review of the proposal by the Air Navigation Commission (AN-Min 176-4, paragraph 26 refer).

The Secretariat notes the comment by **Austria** regarding the deletion of the clause "...implement these actions and ..." from the proposed Recommendation 8.6. The same comment was made by **Germany, Greece, Latvia** and **Netherlands**. However, the implementation of mitigation strategies and monitoring of their effectiveness are essential safety management activities and must be explicitly addressed.

The Secretariat notes the comment by **Austria** regarding the deletion of the clause "...as part of its safety programmes ..." from Recommendation 8.9. The same comment was made by **Germany, Greece, Latvia** and **Netherlands**. The clause is germane to the requirement of exchange of safety information as a State's responsibility under the State safety programme. The Secretariat agrees on the editorial alignment pointed out by **Austria, Germany, Greece, Latvia** and **Netherlands**.

The comment by **Colombia** proposing an amendment to the proposed Standard 3.2 has already been addressed.

The Secretariat notes the comments by **Colombia** about re-naming Annex 13, Chapter 8 as “State safety management measures”, and regarding upgrading the proposed Recommendation 8.5. The Secretariat however, believes that the comments should be considered within the context of the discussion in paragraphs 3.3 through 3.9 proposal of AN-WP/8332.

The Secretariat notes the comment by **Egypt** regarding further amendment to the proposed Standard 8.4. A similar comment was made by the **Russian Federation**. The comments refer to detail that may be differently addressed by different States.

The Secretariat notes the comment by the Accident investigation Board (BEA) of **France** expressing serious reservations to the proposal of making the responsibility of accident and incident investigation part of the State safety programme. However, accident investigation is a State’s responsibility, according to Article 26 of the Convention on International Civil Aviation, and when considered as an activity aimed at improving safety, clearly falls within the definition of SSP.

The comment by **France** that certain statements, notably those regarding data analysis referred in the proposed Standard 8.4 are premature due to a lack of distance by the aeronautical community with respect to database-related analyses, and the undelivered promise at a macro scale of the changes proposed, is noted. The Secretariat believes that the fact that the full potential of safety perspectives may not have been realised does not necessarily justify refraining from action.

The Secretariat notes the comment by **France** that at the 36th Session of the Ordinary Assembly “...safety investigation-related matters were all (*emphasis added*) postponed until the AIG 2008 meeting...thus seems logical to do the same for all aspects of the safety management systems (SMS) which parts of Annex 13 modify.” Under Agenda Item 28.1, Just Culture and Safety Data, the Technical Commission of 36th Session of the Ordinary Assembly agreed that (a) an analysis of the implementation of Annex 13, paragraph 5.12 in relation to Annex 13 Attachment E; and (b) the need to establish time frames for the processing of safety data, be referred to the AIG Divisional Meeting 2008. Under Agenda Item 28.2, Annex 13 Matters, the Technical Commission of 36th Session of the Ordinary Assembly agreed that (a) a proposal of extending the provisions of Annex 13 in terms of participation in an accident investigation to the States of departure and arrival of the flight(s) involved; and (b) a proposal to raise Recommendation 6.6 of Annex 13 to Standard, be referred to the AIG Divisional Meeting 2008.

The Secretariat agrees with the comment by **France** that the present wording regarding the inclusion of investigations in the proposed ICAO SSP framework could inadvertently weaken the independence of the investigation organization. Similar comments were made by **Singapore** and **United States**.

The comment by **France** that proposed Standards 3.2 and 3.3 introduce a degree of confusion by making no mention of the maintaining of an impartial and independent investigation authority, is noted. However, Standards 3.2 and 3.3 are not accident investigation-specific, but part of the generic Standards found in all Annexes including harmonized safety management provisions.

The Secretariat notes – and conceptually agrees – with the comment by **France** about the importance of the validation of safety data analyses, but cannot identify how the proposed Standard 8.4 could have negative consequences.

The Secretariat notes the comment by **France** that the proposed change to paragraph 8.9 may limit the flow of exchange of safety information and affect the beneficial complementarities of the areas of feedback. However, the Secretariat does not agree that portraying the exchange of safety information as a State responsibility would limit flow of exchange and affect feedback.

The Secretariat notes the comments by the **Russian Federation** regarding possible inconsistency between proposed Standards 8.2 and 8.4 and Annex 13, paragraph 5.1.1 and Attachment C, and the ADREP Manual. The Secretariat is unable to identify such inconsistency, since the proposal refers to incident reporting systems, not to the investigation of serious incidents. As for the proposals for further amendment of Annex 13, the Secretariat believes they are beyond the scope of the proposal under consideration. Furthermore, the *ADREP Manual* (Doc 9156) has been discontinued.

The Secretariat notes the comment by **Singapore** about proposed Standards 3.2 and 3.3, and the perspective that the State safety programme is to be established principally by the State CAA. It is felt, however, that this perspective is not totally accurate. The State safety programme will be *fully established* by the State, and *partly delivered* by the CAA, as far as those areas of competence of a CAA are concerned. However, there are areas that exceed the competence of a CAA in terms of the delivery of the State safety programme. Those areas will be delivered by State's organizations other than the CAA. The accident and incident investigation process, which is to be delivered by an independent organization, is one example. The Secretariat furthermore believes that changes in the language of the proposed ICAO SSP framework as consequence from comments by States address the concern by **Singapore** about the independence of the investigation unit.

The Secretariat notes the comments by **United States** about adequately distinguishing the independent role of accident investigations authorities with respect to the CAA, and the integration and analysis functions with the implementation of responses. Changes in the language of the ICAO SSP framework as consequence from comments by States address these concerns.

The Secretariat notes – and conceptually agrees – with the comment by **United States** that safety reporting systems should be more comprehensive and analytical than anecdotal incident reports, and that a discussion on the definition of “incident” to ensure it is broad enough to foster comprehensive reporting is warranted. In line with the preceding, the Secretariat agrees with the proposal by **United States** about the need to amend the proposed Standards 8.1, 8.2 and 8.4, as well as with the inclusion of a Note to the proposed Recommendation 8.6, to clarify the comprehensive nature of safety reporting and the responsibilities of the independent accident investigation authority and the CAA *vis-à-vis* the State safety programme. The Secretariat nevertheless believes that the subject should be considered within the context of the discussion in paragraphs 3.3 through 3.9 of AN-WP/8332.

The comment by **CANSO** about identifying in proposed Standards 8.1 and 8.2 the body or mechanism that should undertake the establishment of reporting systems is noted. The comment, however, refers to detail that may be differently addressed by different States.

The Secretariat notes the comments by **EUROCONTROL**.

ACTION PROPOSED

(Secretariat's note.— The Secretariat is proposing an editorial alignment to the definition of safety programme).

1. Amend Annex 13, Chapter 1, Definitions, to read as follows (new amendment underlined):

State ~~S~~safety programme. An integrated set of regulations and activities aimed at improving safety.

2. Amend Annex 13, Chapter 3, paragraph 3.2, to read as follows:

3.2 States shall establish a State safety programme, in order to achieve an acceptable level(s) of safety performance in the management of safety by the State.

3. Amend Annex 13, Chapter 3, paragraph 3.3, to read as follows:

3.3 The acceptable level(s) of safety performance to be achieved shall be established by the State concerned.

Note 1.— A framework for the implementation and maintenance of a State's safety programme is contained in Attachment F to Annex 11, and Guidance on a State's safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety performance in Attachment E to Annex 11.

Note 2.— Guidance on defining acceptable levels of safety performance is contained in Attachment E to Annex 11 and in the Safety Management Manual (SMM) (Doc 9859).

4. Amend Annex 13, Chapter 8, paragraph 8.1, to read as follows:

8.1 A State shall establish, as part of its State safety programme, a mandatory...

5. Amend Annex 13, Chapter 8, paragraph 8.2, to read as follows:

8.2 A State shall establish, as part of its State safety programme, a voluntary...

6. Amend Annex 13, Chapter 8, paragraph 8.4, to read as follows:

8.4 A State shall establish, as part of its State safety programme, an accident and incident database...

7. Amend Annex 13, Chapter 8, paragraph 8.6, to read as follows:

8.6 **Recommendation.**— *A State should, following the identification of preventive actions required and as part of its State safety programme, establish....*

8. Amend Annex 13, Chapter 8, paragraph 8.9, to read as follows:

8.9 **Recommendation.**— *States should promote, as part of ~~its~~ their State safety programmes, the establishment....*

REFERENCE: Annex 14, Volume I, Chapter 1, paragraph 1.5
Attachment to State letter AN 12/51-07/74, pages F-2 to F-5

STATES' AND INTERNATIONAL ORGANIZATIONS' COMMENTS

Australia

Australia already complies with the recommendations for Annex 14. Australia's regulations specify requirements for SMS and advisory material is consistent with the proposed changes.

Austria

1.5.3: The wording “operator of an aerodrome” versus “aerodrome operator” seems to be grammatically more suited. This comment also applies to subsequent paragraphs of Annex 14. Furthermore, taking into consideration that a large number of aerodromes only serve local domestic and private traffic (e.g. of Aero Clubs), clarity could be added by defining the scope of this Standards. Therefore, the following text is proposed: *“States shall require, as part of their safety programme, that a certified **aerodrome** operator of an aerodrome serving international scheduled air services, implements a safety management system acceptable to the State that, as a minimum ...”*.

Appendix 7, 1.4: The current wording requires interface between SMS systems of the aerodrome and relevant SMS systems of other organisations. If some of those organisations, critical for aerodrome safety (e.g. ground handlers, de-icing providers) do not have a formal SMS in place, they should take part in the SMS of the aerodrome operator. Therefore, the aerodrome operator should interface with other **organisations** not necessarily **with other SMSs**.

Appendix 7, 3.1: The scope of aviation safety at aerodromes encompasses organizations beyond the aerodrome operator itself. The latter should monitor the performance of the total system. Therefore, the text should read: *“The certified aerodrome shall develop and maintain the means to verify the safety performance of the ~~organization~~ operations at the aerodrome, compared to the safety policy and objectives, and to validate the effectiveness of safety risks controls ...”*.

Appendix 7, 3.2: Changes to aerodrome operations may well be more safety critical than changes to the company organisation. Therefore, the following text is proposed: *“The certified aerodrome shall develop and maintain a formal process to identify changes within the organization or aerodrome operations which may affect established processes and services ...”*.

China

We “disagree” to the proposed amendment to Volume I of Annex 14 with the following comments:

Appendix 7 does not contain the responsibilities of “Safety Board” and aerodrome legal person as part of the “organizational structures” (the provision only on “appointment of key safety personnel” is not adequate). This is not consistent with the definition of SMS in Annex 14: “a systematic approach to managing safety, including the necessary organization structures, accountabilities, policies and procedures”.

“SMS implementation plan” is a course which an aerodrome cannot skip in carrying out SMS. Once SMS is implemented, such issue will not exist any more. Therefore, it does not constitute an element.

It is not very logical to place “documentation” and “emergency response planning” in “safety policy and objectives”.

There are no clear safety objectives.

It would be better to place “the management of change” in “risk management”.

It does not comply with the spirit reflected in ICAO Doc 9859, because there is no “information management” and “unsafe event investigation” (referred to as “safety investigation” by ICAO).

Finland

The following text is proposed for 1.5.3: *States shall require, as part of their safety programme, that a certified operator of an aerodrome serving international scheduled air services, implements a safety management system acceptable to that State, as a minimum...*

France

(Note.— See appropriate partial language version of this AN-WP for original text.)

General comment: the ICAO definitions for “aerodrome” and “certified aerodrome” imply that an aerodrome is a thing and not a legal person. It cannot, therefore, be held responsible, nor can it implement an SMS. If, as stipulated in the proposed Attachment F to Annex 11, the SSP requires aerodrome operators to have an SMS, it is not logical to eliminate the reference to the operator in these paragraphs. In the proposed specifications, we propose retaining the references to the legal person of the aerodrome operator as opposed to the aerodrome.

1.5.3, as Standard 1.5.2 was modified to clearly show that only one State is concerned with an aerodrome operator’s SMS, a similar amendment should be made to 1.5.3: *A States shall require, as part of ~~their~~ its safety programme, that a—certified aerodrome operator implements a safety management system acceptable to the State that, as a minimum: [...]*

1.5.3, the French wording of 1.5.3 leads to the understanding that the requirement calls for “certified aerodromes to implement for a State an acceptable system of safety management”. We thus propose clarifying this phrase in the French text by moving the word “acceptable”.

1.5.4, we propose retaining “aerodrome operator”.

Appendix 7, Introduction, see general comments: *This appendix introduces a framework for the implementation and maintenance of a safety management system (SMS) by ~~at~~ a certified aerodrome.*

Appendix 7, 1.1, the wording used suggests that each manager of each entity present at an aerodrome has a commitment and responsibilities within the framework of the SMS of the aerodrome operator. To eliminate this ambiguity, we propose the following wording:

1.1 Management—Commitment and responsibility of aerodrome operator management

The certified aerodrome operator shall define the organization’s safety policy [...] which shall be signed by the [...] executive of the aerodrome operator’s organization. The safety policy shall reflect the aerodrome operator’s organizational commitments [...]

Appendix 7, 1.2 , the term “manager” is not used in Annex 14, Volume 1. The term “aerodrome operator” should be used.

1.2 Safety accountabilities [Translator’s note - change does not apply to English text: “~~obligations additionnelles~~” remains “safety accountabilities”] of ~~managers~~ aerodrome operators
The certified aerodrome operator shall identify [...]. The certified aerodrome operator shall also identify the safety accountabilities [Translator’s note - change does not apply to English text: “~~obligations additionnelles~~” remains “safety accountabilities”] of all members of senior management of the aerodrome operator’s organization [...]

Appendix 7, 1.3, *the certified aerodrome operator shall identify [...]*

Appendix 7, 1.4, the aerodrome operator should not only coordinate its SMS with those of the other

entities involved at the aerodrome (not all of which have one); it should also coordinate its SMS with the other organizations present at the aerodrome.

1.4 The certified aerodrome operator shall develop [...]. The SMS implementation plan of a certified aerodrome shall explicitly address the aerodrome operator's coordination of the its SMS of the certified aerodrome and with the SMS of other organizations the certified aerodrome must interface with [...]. The SMS implementation plan shall be endorsed by senior management of the organization aerodrome operator. This coordination includes coordination with the SMS existing at the aerodrome.

Appendix 7, 1.5, this provision regarding the coordination of emergency response planning is not specific to the SMS and also appears in Annex 14, 9.1, and Doc 9774, Appendix 1, 4.3. Delete 1.5 or clarify the relationship between the requirements referred to.

Appendix 7, 1.6, the redundancy of the phrase “procedures and processes” reduces the comprehensibility of this sentence. We propose using “gérer” [“manage”] in the French text rather than “s’occuper de (la sécurité)” [“deal with {safety}”] for the sake of consistency with regard to 1.4.

The certified aerodrome operator shall develop [...] SMS documentation to describe the safety policy and objectives, the SMS requirements, the SMS procedures and processes, the accountabilities [Translator's note: deletion of “obligations redditionnelles” does not apply to English text], responsibilities and authorities for procedures and processes, and the SMS outputs safety management. [...] to communicate its approach to safety management throughout the organization.

Appendix 7, 2.1: *The certified aerodrome operator shall develop [...]*

Appendix 7, 2.2, the reference to tolerability invites confusion. We thus propose deleting the parenthesis.

2.2 The certified aerodrome operator shall develop [...] that ensures analysis (in terms of probability and severity of occurrence), assessment (in terms of tolerability) and control (in terms of mitigation) of risks to an acceptable level.

Appendix 7, 3.1, the performance is that of the aerodrome, but it is the operator which develops a means to verify this performance. The end of the last sentence is not worded very clearly. It should either be clarified or deleted.

3.1 The certified aerodrome operator shall develop [...] the means to verify the safety performance of the organization's aerodrome operations [...]. The safety reporting procedures related to safety performance and monitoring [...] , and include the conditions under which immunity from disciplinary action would be considered.

Appendix 7, 3.2, *The certified aerodrome operator shall develop [...]*

Appendix 7, 3.3 *The certified aerodrome operator shall develop and maintain [...]*

Appendix 7, 4.1 the second sentence of 4.1 is ambiguous and redundant. It would be advisable to delete it.

4.1 The certified aerodrome operator shall develop [...]. The scope of the safety training shall be appropriate to each individual's involvement in the SMS.

Appendix 7, 4.2, *The certified aerodrome operator shall develop [...]*

Germany

(Secretariat's note.— See Germany's comments under Annex 11)

Greece

(Secretariat's note.— See comments by Austria).

Latvia

(Secretariat's note.— See comments by Austria).

Netherlands

(Secretariat's note.— See comments by Austria).

ACI

1.1 Management commitment and responsibility

The airport operator must obtain the participation and commitment of air traffic services, airlines, service providers, clients and other organizations that interact within the framework of the SMS.

An Airport Safety Steering Committee should be established to link together the SMS of the different organizations and set general guidelines. This is particularly relevant in the case of airports operators which operate under a concession, since services like ATC, firemen, ground handlers and others may not be directly answerable to the airport operator.

SECRETARIAT'S COMMENTS

The Secretariat notes the comment by **Australia**.

The Secretariat notes the comment by **Austria** regarding the grammar of “operator of an aerodrome” and “aerodrome operator”, and the proposal to include a reference to international scheduled services in Annex 14, Volume I, paragraph 1.5.3. The same comment was made by **Finland, Greece, Latvia and Netherlands**. It should be noted that the amendment to Annex 14 circulated through State letter AN 12/17-07/7 proposes the removal of the word “operator” altogether, and existing Standards in Annex 14 require the certification of international aerodromes only.

The Secretariat notes the comment by **Austria** regarding the use of the term “organization” in Annex 14, Volume I, Appendix 7, paragraph 3.1. The same comment was made by **Greece, Latvia and Netherlands**. The term “organization” is a generic term that is used throughout the proposed ICAO SMS framework to designate the “owner” of the SMS, who must verify the safety performance of *all* operations related to the delivery of the services the organization provides. The same applies to the comment by **Austria, Greece, Latvia and Netherlands** regarding Annex 14, Volume I, Appendix 7, paragraph 3.2.

The Secretariat notes the comment by **China** regarding the lack of reference to the responsibilities of a “Safety Board” in the proposed ICAO SMS framework. The framework is intended to describe the processes needed to implement an SMS, leaving the implementation details to the guidance material. The contribution of senior management to an SMS is clearly articulated under element 1.2 of the revised proposed ICAO SMS framework. This is supported by a detailed discussion of accountabilities and responsibilities of all levels of an organization regarding the operation and performance of an SMS in Chapter 8 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The Secretariat notes the comment by **China** about the location of “documentation” and “emergency planning” in the proposed ICAO SMS framework. In the absence of a proposal, the Secretariat is unable to propose further action at the present time.

The Secretariat notes the comment by **China** regarding the location of “the management of change” in the proposed ICAO SMS framework. According to safety risk management dogma, however, the management of change is a safety assurance function.

The Secretariat notes the comment by **China** regarding lack of reference to “information management” and “unsafe event investigation”. Information management is implicit under element 1.5 (SMS documentation) of the revised proposed ICAO SMS framework, and unsafe event investigation is implicit under element 3.1 (Safety performance monitoring and measurement). Both are discussed in Chapter 8 and Chapter 9 respectively of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The Secretariat notes the comment by **France** regarding the removal of the term “operator” from the safety management requirements in Annex 14, Volume I, both in the basic safety management provisions as well as in the proposed ICAO SMS framework. However, the term “certified aerodrome operator” is not clearly defined in ICAO documentation. There are variations in actual practice also. For example, in some cases, “aerodrome operators” are not fully responsible for compliance to Annex 14. Air navigation service providers may be responsible for obstacles in and around the aerodrome, lighting, bird hazard control and so forth, while other requirements of Annex 14 (for example, pavement, non-electrical signs and markings) may be the responsibility of the aerodrome operator. The use of the term “aerodrome operator” has therefore the potential of not only making it unclear who is the “aerodrome operator”, but also to complicate the aerodrome certification.

The Secretariat notes the comment by **France** regarding the use of “State” (singular) in Annex 14, Volume I, paragraph 1.5.3 to make it consistent with the proposed amendment to Annex 14 Volume I, paragraph 1.5.2. In the latter case, the use of the singular is technically necessary, while in the case of the former the use of the plural is editorially consistent with Annex 14.

The Secretariat notes the comment by **France** regarding the French version of Annex 14, Volume I, paragraph 1.5.3, and will act accordingly.

The Secretariat notes the English editorial comment by **France** in the Introduction of the proposed ICAO SMS framework. The existing text correctly conveys the message intended (*who* must implement an SMS, as opposed to *where* it must be implemented).

The Secretariat notes the comment by **France** regarding element 1.1 of the proposed ICAO SMS framework. The element conveys the generic principle that, to different degrees and to an extent commensurate with the relationships necessary for the provision of services, each manager of each organization providing services at a certified aerodrome has accountabilities and responsibilities in regard to the aerodrome’s SMS.

The Secretariat notes the comment by **France** regarding the French version of element 1.2 of the proposed ICAO SMS framework, and will act accordingly.

The Secretariat notes the comments by **France** regarding the French version of element 1.6 of the proposed ICAO SMS framework and will act accordingly. As for replacing “procedures and processes” for “safety management”, as proposed by **France**, it would dilute what is encompassed under

responsibilities and authorities. The Secretariat agrees with the comment by **France** about inserting the word “management” in the last sentence of the element.

The Secretariat notes the comment by **France** about the reference to “tolerability” in element 2.2 of the proposed ICAO SMS framework. The link between assessment and tolerability of safety risks reflects basic safety risk management dogma.

The Secretariat notes the comment by **France** about removing/clarifying the clause “...and include the conditions under which immunity from disciplinary action would be considered”. The clause has been moved under element 1.1 as consequence of comments by States.

The Secretariat notes the comment by **France** about removing the reference to the scope of safety training as a function of individual involvement in the SMS. A reference to scoping SMS training is appropriate, and it furthermore provides a link with a discussion on the subject in Chapter 10 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

The Secretariat has addressed the comments by **Germany** under Annex 11.

The Secretariat notes the comments by **ACI**, and believes they are properly addressed in Chapter 8 of the second edition of the *ICAO Safety Management Manual (SMM) (Doc 9859)*.

ACTION PROPOSED

(Secretariat’s note.— The Secretariat is proposing an editorial alignment to the definition of safety programme).

1. Amend Annex 14, Volume I, Chapter 1, Definitions to read as follows (new amendment underlined):

State Safety programme. An integrated set of regulations and activities aimed at improving safety.

2. Amend Annex 14, Chapter 1, paragraph 1.5.1 to read as follows:

1.5.1 States shall establish a State safety programme, in order to achieve ~~an~~ acceptable level(s) of safety performance in aerodrome operations.

3. Amend Annex 14, Chapter 1, paragraph 1.5.2 to read as follows:

1.5.2 The acceptable level(s) of safety performance to be achieved shall be established agreed by between the State’s State concerned and the certified aerodrome.

Note 1.— A framework for the implementation and maintenance of a State’s safety programme is contained in Attachment F to Annex 11, and Guidance on a State’s safety programmes is contained in the Safety Management Manual (SMM) (Doc 9859), and on defining acceptable levels of safety in Attachment E to Annex 11.

Note 2.— Guidance on defining acceptable levels of safety performance is contained in Attachment E to Annex 11 and in the Safety Management Manual (SMM) (Doc 9859).

4. Amend Annex 14, Chapter 1, paragraph 1.5.3 to read as follows:

1.5.3 States shall require, as part of their State safety programme, that a certified aerodrome ~~operator~~ implements a safety management system acceptable to the State that, as a minimum:

...

- b) ensures that remedial action necessary to maintain an acceptable level(s) of safety performance is implemented;
- c) provides for continuous monitoring and regular assessment of the safety acceptable level(s) of safety performance achieved; and
- d) aims to make at a continuous improvement to of the overall acceptable level(s) of safety performance of the safety management system.

— END —