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Tegucigalpa, Honduras, 11 – 14 October 2005

Agenda Item 2: Safety Oversight
2.5 Safety – related topics

ENHANCEMENT OF THE AVIATION SAFETY CULTURE

(Presented by the Secretariat)

SUMMARY
This paper presents information to the Meeting in an effort to assist in the enhancement of the aviation safety culture in the Region. This information includes ICAO requirements with regard to Safety Management Systems and the systematic USOAP audits as catalysts for improving the safety culture.

1. Introduction

1.1 After a year with an excellent aviation safety record, the current year has shocked us back to reality, to the fact that all is not entirely well in the international civil aviation community.

Date	Carrier	Type Aircraft	State of Registry	State of event	Fatalities
08/2/05	Air France	A340	France	Canada	0
08/7/05	Tuninter Air	ATR/72	Tunis	Italy	14
08/14/05	Helios Airways	B-737	Cyprus	Greece	121
08/17/05	West Caribbean	MD-82	Colombia	Venezuela	160
08/24/05	Tans Airlines	B-737	Peru	Peru	40
09/6/05	Mandala Air	B-737	Indonesia	Indonesia	117 +45 ground

1.2 Accidents continue to occur and without wanting to prejudge the factors involved in these accidents while the investigations are still going on, it would probably be safe to assume that human factors were involved if not in all, most of these accidents. It appears that the underlying element in human factor contribution to accidents could be the lack of a positive aviation safety culture within the operators as well as the regulatory authorities..

2. Discussion

MANAGEMENT'S RESPONSIBILITY FOR SAFETY

2.1 The management teams of civil aviation administrations, operators and service providers bear a special responsibility for accident prevention. In a major study of airlines around the world, it was found that the safest airlines had a clear safety mission, starting at the top of the organization and guiding actions right down to the operational level.

2.2 Management has the authority and the responsibility to manage safety risks in the organization. It achieves this by establishing a systematic method for identifying hazards, assessing risks, assigning priorities to these risks and then by reducing or eliminating those hazards which pose the greatest potential loss. It alone has the ability to introduce changes in the organization, its structure, its staffing, its equipment, policies and procedures.

2.3 Above all, management sets the organizational climate for safety. Without management's wholehearted commitment to safety, safety management will be largely ineffective. In positively reinforcing safety actions, management sends the message to all staff that it really cares about safety and they had better too. Also, to establish safety as a core value of the organization, it is necessary to make safety an integral part of the management plan. Setting objectives and safety goals, then holding managers and employees accountable for achieving those goals, can do this.

2.4 This onus on management for safety management applies, to all organizations providing an aviation service, regardless of type or size.

Positive safety culture

2.5 While an exact definition of a safety culture does not exist, a recurring theme in aviation circles is that organizations with effective safety cultures share a constant commitment to safety as a top-level priority, which permeates the entire organization through an assembly of characteristics and attitudes which establishes that, as an overriding priority, safety issues receive the attention warranted by their significance. Characteristics of a safety culture include:

1. The commitment by senior management to safety as a priority, behavioral pattern and a pervasive way of life.
2. Clear expectations by each level of management as well as for all employees, safe work habits are as normal as breathing and must be practiced off the job as well as on the job.
3. Clear, easily understood operating procedures, followed without deviation under ordinary circumstances, and with processes in place to address out-of-the ordinary operational events.
4. An inclusive system of communications for collecting, analyzing, and exchanging data related to safety.
5. Non-retribution – or even reward – for submission of data.

6. Retraining without penalty or stigma when safety is involved.
7. A system for tracking incident and accident data, analysis of trends, and feedback of results.
8. Peer acceptance that accidents are preventable, regardless of operations.
9. Peer acceptance and appreciation that safety is a matter of lifestyle – a matter of culture – and an hour-by-hour choice in life.

2.6 Safety may be considered diplomatic short-hand for accident and incident prevention. In short, a real safety culture is formed by the adoption of a series of performance expectations, attitudes and best practices which combine to effectively prevent accidents. All staff must be responsible for and consider the impact of safety on everything they do. This way of thinking must be so deep-rooted that it truly becomes a *'culture'*. All decisions, either by the Director of Civil Aviation, by a driver on the ramp, or by an inspector, need to consider the implications on safety.

2.7 This is the standard by which all of us should operate, with the benefit of zero accidents over time. That level of performance is difficult to achieve in a community as diverse as civil aviation, but the benefits far outweigh the effort and the cost.

2.8 Aviation organizations can begin to form that aviation safety culture by designing a formal safety programme consisting of these major components:

1. Compliance with ICAO requirements (USOAP, SMS, QA, etc.)
2. A formal accident/incident prevention programme,
3. Employee safety and accident prevention education and training,
4. An internal reporting system to allow employees and other personnel to report incidents and recognized hazards, without retribution.
5. An internal/external assessment programme to monitor the effectiveness of the Safety Programme.

2.9 When one looks inside an organization, it is apparent that certain actions are rewarded while others are sanctioned. Managers and employees learn these patterns and conform. This pattern of values, expectations and behaviors becomes the organization's culture. Certain cultures can advance the cause of safety, while others are counter-productive.

2.10 The table below summarizes three organizational responses to safety issues ranging from a poor safety culture, through the bureaucratic approach which only meets minimum acceptable requirements, to the ideal positive safety culture.

Safety Culture: **Characteristics** ⇨ ⇩	***Poor***	***Bureaucratic***	***Positive***
Hazard information is:	Suppressed	Ignored	Actively sought
Safety messengers are:	Discouraged or punished	Tolerated	Trained and encouraged
Responsibility for safety is:	Avoided	Fragmented	Shared
Dissemination of safety information is:	Discouraged	Allowed but discouraged	Rewarded
Failures lead to:	Cover ups	Local fixes	Inquiries and systemic reform
New ideas are:	Crushed	New problems (not opportunities)	Welcomed

2.11 In many respects, safety is a social issue. Akin to the stages of "issue maturity", the maturity of safety management systems has reached the level where SMS is about to be institutionalized globally in legislation and in business practice. It is fast becoming the new norm, and the way business is done. Aviation is no exception.

ICAO REQUIREMENTS FOR SAFETY MANAGEMENT SYSTEMS

2.12 Safety has always been an important consideration in all aviation activities. This is reflected in the aims and objectives of ICAO as stated in Article 44 of the *Convention on International Civil Aviation* (Doc 7300) which charges ICAO with ensuring the safe and orderly growth of international civil aviation throughout the world.

2.13 The standards and recommended practices relating to the implementation by States of safety management programmemes for Air Traffic Services (ATS) were introduced in Section 2.26 of Amendment 40 to Annex 11 – *Air Traffic Services*, which became applicable on 1 November 2001. Annex 14, Vol. 1 Section 1.4 stipulates that as of 27 November 2003, international aerodromes must be certified and that they must have an SMS in effect as of 24 November 2005 (Ref. WP/11). SMS are an indispensable pro-active tool for creating and reinforcing the "safety culture" in any organization

2.14 It should be noted that the 11th Air Navigation Conference, Montreal 22 September to 3 October 2003, recommended the development of a framework for system safety, based on the system safety approach proposed in the Global Air Traffic Management Concept presented to the Conference. The system safety approach encompasses all organizational levels, all disciplines, and all system life-cycle phases. The Conference, in supporting this approach, noted that the elements of the total system extended well beyond the scope of any one Annex. Factors related to, *inter alia*, meteorology, aeronautical charts, aircraft operations, airworthiness, aeronautical information and the transport of dangerous goods, could have an impact on total system safety.

COMPREHENSIVE SYSTEMATIC APPROACH TO SAFETY AUDITS

2.15 The 35th Assembly, October 2004, resolved that the Universal Safety Oversight Audit Programme (USOAP) be expanded to include the safety-related provisions in all safety-related Annexes. The Assembly further requested the restructuring of USOAP to adopt a comprehensive systems approach in conducting safety oversight audits in all States to begin in 2005 (Ref. WP/04). Based on the excellent results of the USOAP audits of Annexes 1, 6, and 8, expectations are that the same level of results will emanate from the systematic audits of safety-related provisions.

3. Conclusion

3.1 Aviation has a good safety record and we cannot afford to be complacent, we need to ensure that any changes which take place in the coming years are not to the detriment of our safety record. Safety must remain the number one priority for aviation and we must look at ways in which our safety record can be improved even further.

3.2 The information provided in this paper is not meant as a finger pointing exercise, it has as its main objective to provide information on a positive aviation safety culture and raise awareness on the need to enhance the aviation safety culture in the Region for the benefit of the international civil aviation community. The idea should be very clear, that compliance with ICAO requirements and the establishment of a Safety Management System are necessary elements in a truly positive safety culture.

4. Suggested Action

4.1 The Meeting is requested to:

a) note the information presented;

b) comply with ICAO requirements particularly the implementation of Safety Management Systems, and

c) commit to taking other appropriate measures for the enhancement of the aviation safety culture in their respective organizations.

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