



INTERNATIONAL CIVIL AVIATION ORGANIZATION

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## ASSEMBLY — 35TH SESSION

### TECHNICAL COMMISSION

#### Agenda Item 24: ICAO Global Aviation Safety Plan (GASP)

#### A GLOBAL MODEL FOR THE IMPLEMENTATION OF SAFETY MANAGEMENT IN AIR TRAFFIC MANAGEMENT (ATM)

(Presented by the European Civil Aviation Conference (ECAC))<sup>2</sup>

#### SUMMARY

The 11th Air Navigation Conference (September 2003), in its consideration of safety issues, emphasized (at several instances) the need to achieve a more structured approach to implementation of safety management (e.g. ANConf/11 Recommendations 2/1 and 2/2). This paper discusses various approaches to Air Traffic Management (ATM) safety management implementation. The paper proposes that ICAO should establish a standardized global model for the implementation of ATM safety management systems. It also proposes formation of an informal focus group, under the auspices of ICAO, to make recommendations on the achievement of global harmonization in the implementation of ICAO provisions for ATM safety management. The paper has been elaborated and coordinated by EUROCONTROL.

Action by the Assembly is in paragraph 4.

<sup>1</sup> English, French, Russian and Spanish versions provided by ECAC

<sup>2</sup> Presented by 41 Contracting States (Albania, Armenia, Austria\*, Belgium\*, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus\*, the Czech Republic\*, Denmark\*, Estonia\*, Finland\*, France\*, Germany\*, Greece\*, Hungary\*, Iceland, Ireland\*, Italy\*, Latvia\*, Lithuania\*, Luxembourg\*, Malta\*, Monaco, the Netherlands\*, Norway, Poland\*, Portugal\*, the Republic of Azerbaijan, the Republic of Moldova, Romania, Serbia and Montenegro, Slovakia\*, Slovenia\*, Spain\*, Sweden\*, Switzerland, The former Yugoslav Republic of Macedonia, Turkey, Ukraine and the United Kingdom\*)

Member States of the European Union are indicated with an asterisk in the above list.

## 1. INTRODUCTION

1.1 The 11th Air Navigation Conference (ANConf/11) made a number of recommendations concerning Air Traffic Management (ATM) safety (e.g.: Recommendations 2/1 and 2/2). These recommended that ICAO should investigate appropriate mechanisms for the development and implementation of a framework for a uniform and system-wide approach to safety, and the application of this framework to:

- a) the harmonisation of provisions relating to safety assessment and safety management in relevant Annexes and Procedures for Air Navigation Services (PANS); and
- b) the harmonisation of the approaches to safety assessment in the development of safety-related standards and recommended practices (SARPs).

1.2 The ANConf/11 also recommended that States should be encouraged to share information on ATM accidents and incidents.

1.3 The number of flights in Europe is forecast to grow by a factor of approximately two by 2020, which means that the accident rate must be halved to ensure that the current number of accidents does not rise. The safety objective of the EUROCONTROL ATM Strategy for the Years 2000+ is *"To improve safety levels by ensuring that the **number** of ATM induced accidents and serious, or risk bearing, incidents do not increase and, **where possible decrease**"*. This means that preventative actions must be taken to ensure that ATM safety in Europe is enhanced. The corresponding activity is therefore focused on strengthening safety management systems.

1.4 The objective of this paper is to suggest that ICAO should consider developing and adopting a standardized global model for States to use for the implementation of safety management in ATM.

## 2. THE APPROACH TO ATM SAFETY

2.1 Since the early 1990s European ATM safety has been developed to ensure a strong oversight of regulation implementation by separating safety regulation from safety management. Safety has also been enveloped within a Gate-to-Gate concept. This framework for ATM safety has laid the basis for ensuring that European States can develop their own ATM safety systems to a common agreed format. EUROCONTROL has developed Safety Regulatory Requirements (ESARRs) that require States to take certain actions to ensure that safety systems are developed in a controlled way to a common baseline and they form the basis for oversight of the ATM system. ESARRs complement and usually exceed ICAO provisions; they underpin the development of the European ATM safety framework and are being used by the European Commission as the basis for legislation within the European Community. Further discussion of EUROCONTROL ATM safety oversight is presented in a separate paper (A35 WP/xx) under Agenda Item 16.

## 2.2 Progress on ATM Safety Development

### *EUROPE*

2.2.1 An ECAC-wide survey undertaken in 2003 showed that the maturity level of safety frameworks is uneven, and that leadership of and commitment to implementation of safety systems needs to be improved. EUROCONTROL has agreed a European Strategic Safety Action Plan (SSAP) that identifies the highest priority actions (which cover, resources, reporting, runways, regulations, R&D and technical issues) that must be taken to enhance ATM safety. This plan sets out the priorities, gives timescales for implementation and indicates stakeholder responsibility and accountability. One of the key and well known requirements is the development of a non-punitive safety culture.

2.2.2 A specific implementation programme has been launched that aims to raise the overall level of ATM safety framework maturity to a common minimum level by early 2006. At the same time EUROCONTROL is working with the European Commission and States to address wider ATM safety issues such as incident reporting and the dissemination of information on ATM safety risks.

### *ICAO*

2.2.3 In addition to the standards that have been included in Annex 11, ICAO is developing guidance material in the form of a safety management manual for Air Traffic Services. A programme of regional workshops has been established to promote awareness.

2.2.4 Similar action has been taken in the areas of aerodromes where guidelines for runway safety management are being developed and a safety management manual for aerodromes is also under development.

2.2.5 EUROCONTROL is cooperating with ICAO in these activities.

## 3. FUTURE ACTION

3.1 A formal approach to ATM safety is being promoted, within Europe, for both safety regulation and safety management. However, informal groups have been used to develop ideas and it has been found that this modus operandi has efficiently led to formal proposals. Specific arrangements have been established for the harmonization of safety management principles and practices for implementation in States.

3.2 The approach taken has allowed new ideas to be formulated and implemented. In particular the SSAP was developed in this manner and is already leading to ATM safety improvements. It is believed that this approach would have benefits in a worldwide context, as already achieved in fact in the runway safety area where a similar informal approach has proved beneficial.

3.3 In order to complement the work already being undertaken by ICAO, it is proposed that ICAO should develop and adopt a standardized safety management model for States to use for the implementation of ATM safety management systems. This would lay the foundation for worldwide harmonization of safety management systems.

3.4 It is proposed that the development of recommendations for the implementation of worldwide harmonization of ATM safety management could be progressed by convening an informal focus group of

interested States and international organizations. This would allow participants to put forward ideas in an informal way and then make concrete recommendations to ICAO on how globalization of ATM safety management systems can best be achieved. The need to formalize such arrangements could be assessed by ICAO at a later stage, as required.

#### 4. **ACTION BY THE ASSEMBLY**

4.1 The Assembly is invited to:

- a) request ICAO to develop and adopt a standardized global model for States to use for the implementation of safety management systems, as a complement to the work already in progress; and
- b) invite ICAO to convene an informal focus group of interested States and international organisations for the purpose of making recommendations for the achievement of a global harmonization in the implementation of ICAO provisions for ATM safety management.

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