ELEVENTH AIR NAVIGATION CONFERENCE

Montreal, 22 September to 3 October 2003

Agenda Item 2: Safety and security in air traffic management (ATM)
2.1 Safety management systems and programmes :

A EUROPEAN PERSPECTIVE OF SAFETY ROLES IN AIR TRAFFIC MANAGEMENT

(Presented by the European Organisation for the Safety of Air Navigation (EUROCONTROL) on behalf of its Member States and those of ECAC[1])

SUMMARY

Structural changes in Air Traffic Management (ATM) have resulted in a separation of safety roles into Safety Management and Safety Regulation. The principles of these roles are briefly mentioned.

At the European level, EUROCONTROL has structured its safety activities and support into these two distinct areas in order to better respond to the needs of national stakeholders. This enables safety to be fully addressed within a total aviation system approach.

[1] The ECAC Member States are: **Albania**, Armenia, **Austria**, Azerbaijan, **Belgium**, Bosnia and Herzegovina, **Bulgaria**, **Croatia**, **Cyprus**, **the Czech Republic**, **Denmark**, Estonia, **Finland**, **France**, **Germany**, **Greece**, **Hungary**, Iceland, **Ireland**, **Italy**, Latvia, Lithuania, **Luxembourg**, **Malta**, **Moldova**, **Monaco**, **the Netherlands**, **Norway**, Poland, **Portugal**, **Romania**, Serbia and Montenegro, **the Slovak Republic**, **Slovenia**, **Spain**, **Sweden**, **Switzerland**, **The former Yugoslav Republic of Macedonia**, **Turkey**, Ukraine **and the United Kingdom**).

The 31 Member States of EUROCONTROL appear in **bold**

1. INSTITUTIONAL CONTEXT

1.1 Structural changes in the European ATM industry have been accelerating over recent years. Progressive separation of service-provision from other government activities has seen the establishment of agencies, corporations and companies, both publicly and privately owned, operating in an increasingly market-oriented way.

1.2 More recently and through the Single European Sky regulations, the European Union is also encouraging the separation of regulatory activities from service provisions, at least at the functional level.

1.3 Correspondingly, this has also given rise to the emergence of the national bodies needed to regulate this new ATM environment from a safety viewpoint. In many aviation sectors, such as airworthiness and airline operations, such activities are well established and understood, but safety regulation generally represents a new concept in ATM.

1.4 The emergence of these institutional models has resulted in a progressive clarification and separation of safety roles, as:

1.4.1 ***Safety Management —*** Essential processes used by organisations providing safety-related services or products.

1.4.2 ***Safety Regulation —*** The process applied by States for establishing, overseeing and enforcing minimum safety levels in the public interest.

Safety regulation and safety management are two separate but complementary functions and as such ought to be operated in interactive and co-operative manner.

2. SAFETY MANAGEMENT

2.1 Safety Management is the process used by safety regulated organisations, which provide safety-related services or products to ensure that all relevant safety aspects have been adequately addressed.

2.2 This process comprises:

a) development and implementation of safety policies;

b) development and implementation of safety plans;

c) conduct of safety assessments;

d) provision of evidence that safety standards are complied with;

e) measuring and monitoring safety achievements; and

f) ensuring that identified deficiencies are rectified.

3. SAFETY REGULATION

3.1 National governments have the role of ensuring the continuing safety of their citizens. In aviation, this is done through a legislatively based system of safety regulation. To be effective, safety regulation has to operate separately from other ATM functions, especially service-provision. This ensures that there is no conflict of interest, and that safety is not compromised by other considerations. It is equally important to demonstrate that this is the case.

3.2 Safety regulation is conducted through the establishment of national safety regulatory frameworks that address, as a minimum:

a) definition of national safety regulatory responsibilities;

b) setting minimum acceptable levels of safety;

c) safety rule-making;

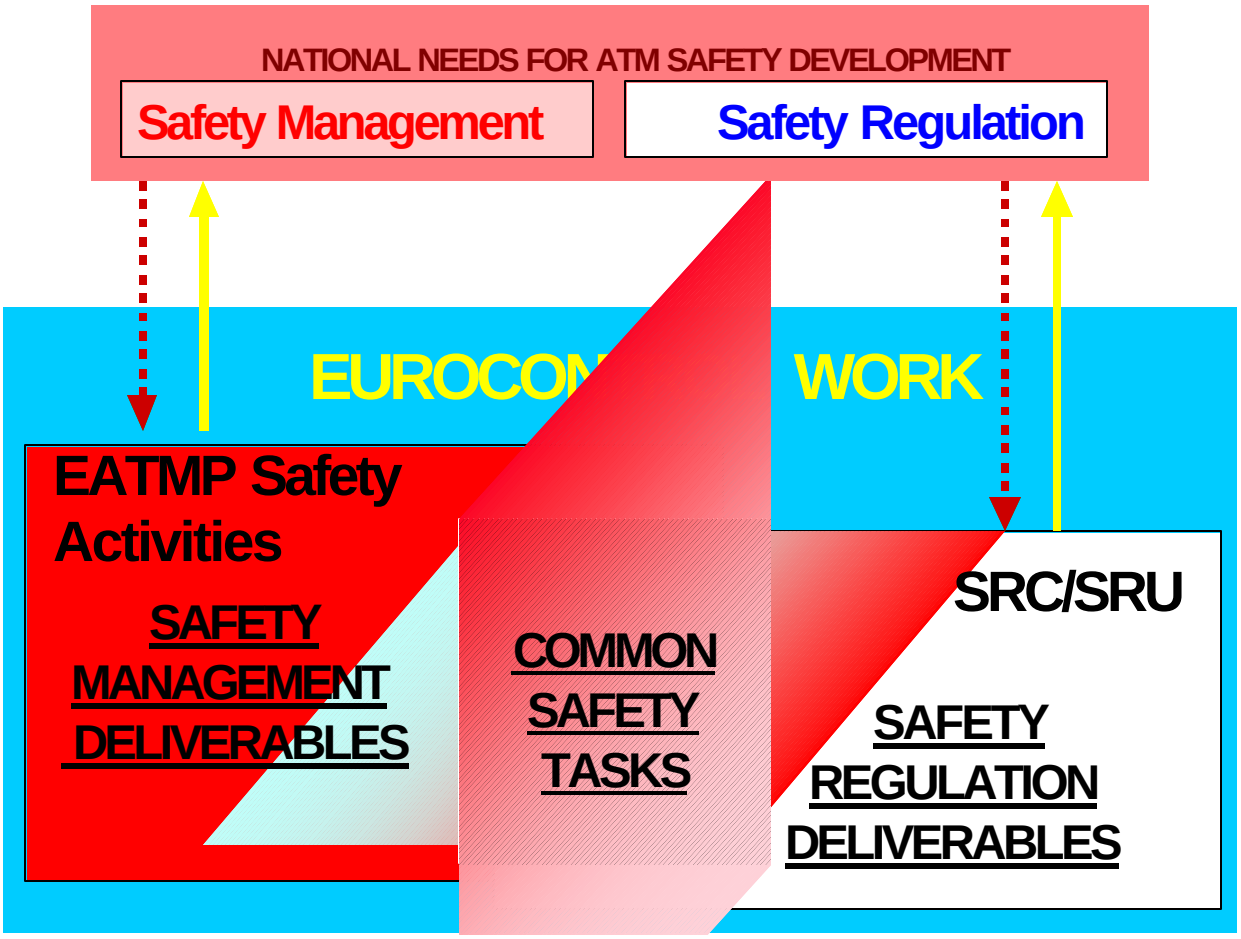
d) defining safety requirements, standards and practices;

e) safety oversight; and

f) safety regulatory approvals (safety certification).

4. ATM SAFETY AT THE EUROPEAN LEVEL

4.1 The European Organisation for the Safety of Air Navigation (EUROCONTROL) has the task of harmonising ATM safety at the European level. EUROCONTROL's organisational structure in safety reflects the need to separate service-provision and regulation while ensuring their complementarity, and also responds to stakeholder needs in these groups of stakeholders at national level, as shown below:



SRC: Safety Regulation Commission
SRU: Safety Regulation Unit
EATMP:European Air Traffic Management Programme

4.2 **Safety Management At The European Level**

4.2.1 Established in 1995, the EATMP Safety Team comprises a group of senior officials largely from Air Navigation Service Providers (ANSPs) and is responsible for the development, promotion and implementation of a harmonised approach for the safety management of air navigation services.

4.2.2 The harmonised approach for the safety management of air navigation services developed by EATMP is intended to meet, as a minimum, the provisions of the EUROCONTROL Safety Regulatory requirements (ESARRs).

4.2.3 It covers:

a) development of EATMP Safety Policy and support its deployment (EATMP, ANSPs);

b) support to Safety Case development (EATMP, ANSPs);

c) promotion of exchange of safety information;

d) implementation of safety occurrence report principles;

e) awareness, prevention and safety improvement initiatives at European level; and

f) awareness and training.

4.3 **Safety Regulation at the European Level**

4.3.1 Established in 1998, the EUROCONTROL Safety Regulation Commission has been developing a framework that States can use to implement, develop and harmonise ATM safety regulation. A key element of this framework is a set of safety regulatory requirements.

4.3.2 EUROCONTROL Safety Regulatory Requirements (ESARR's) are high-level, objective-based ATM requirements documents, which complement ICAO SARP's in relevant areas, and set an ECAC-wide baseline for ATM safety. Four have so far been approved by the EUROCONTROL Commission:

ESARR 2 — Reporting Assessment of Safety Occurrences in ATM

ESARR 3 — Use of Safety Management Systems by ATM Service Providers

ESARR 4 — Risk Assessment and Mitigation in ATM

ESARR 5 — ATM Services' Personnel

4.4 Within their commitments under the EUROCONTROL Convention, Member States are obliged to implement ESARRs into their national safety regulatory framework within the agreed time-scales. In addition, a wide range of further support actions is necessary in order to ensure their successful implementation at national level.

5. CONCLUSIONS

5.1 Safety roles in Europe have evolved to fit the institutional structure of the ATM industry, and now reflect more closely those existing in other aviation sectors.

5.2 At the European level, EUROCONTROL has a wide range of safety activities whose aim is the harmonisation of ATM safety in both the safety management and safety regulation fields, within a total aviation system safety approach.

— END —