



## **Common Text for the EATCHIP Communications Strategy**

### **Abstract**

Hypertext used in the generation of volumes 1-3 of the strategy.

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## 1. HEALTH WARNING

**Caution!** This document has been prepared using Microsoft Word version 6.0c, which is compatible also with Microsoft Word version 7, as supplied with Office '95. The document makes extensive use of cross-referencing and hyperlinked text, both within documents and between documents. For hyperlinking between documents, it is essential that ALL files of the document set are held in the same directory, and that their names are unchanged. The files required are

- MGTST.DOC - Volume 1
- ECS.DOC - Volume 2
- VOL3.DOC - Volume 3
- COMMON.DOC - common hypertext
- ECS2.PPT - Figures

Care should be taking when editing the document that the "Master" text portion is being changed, not a hyperlinked subordinate. Subordinate text appears with a grey background on a VDU.

Conversion to Word '97 has been shown to corrupt the linking and should be avoided.

## 2. STRUCTURE AND USAGE

The strategy is presented in three volumes, the first two of which state the policy:

- Volume 1: Communications Strategy (Management Overview) It provides an overview, from a business perspective, of the business drivers, guiding principles, technical approach and timescales of the strategy.
- Volume 2: Communications Strategy (Technical Description) It provides a greater level of detail of requirements, opportunities and constraints, and the technical implications of the strategy, together with a glossary of terms.
- Volume 3: Communications Strategy (Background) It contains material which was considered during the development of the strategy, and the possible architectural direction for realisation.

It is intended that the strategy will be used by the aeronautical community and industry for planning transition and migration towards the identified strategic communications solutions.

The Agency and the COM Team will use this document as the basis for developing the work programme and ATSOs will use it for the development of national strategies.

## 3. OBJECTIVES

The business drivers for the COM Strategy correspond to the "Major Objectives" identified in the ATM 2000+ strategy, namely:

1. Safety - to deploy in a timely manner communications services and infrastructure which are reliable, secure and consistent with the new functionality required to support the new operating concepts which are necessary to achieve the overall safety targets.
2. Capacity - to improve use of communications resources and support new operating concepts which are dependent on increased use of data rather than voice, and interoperability between distributed systems components.

3. Flight Effectiveness - to provide improved air-ground communication, and to facilitate ATS/AOC collaboration in flight planning and decision making.
4. Economics (Cost Effectiveness) - to adopt communications techniques that reflect the best business practices and utilise appropriate technical solutions for best use of resources. (Business efficiency and airline competitiveness makes it essential that services are provided in the most economic manner.)
5. Environment - to provide better communications as an enabler to improved flight planning, thereby achieving environmental benefits through improved flight effectiveness.
6. National Security and Defence Requirements - to ensure interoperability and integration of civil and military ATM while preserving the confidentiality of sensitive data.
7. Uniformity - to ensure that common standards are adopted and implemented globally for aeronautical communications, and to continue the harmonisation and integration of the communications infrastructure throughout the ECAC area.

The primary goal of the COM Strategy is therefore to develop a safe, efficient and cost-effective set of communications solutions which support, in a globally compatible manner and with due regard for backward compatibility, the evolution of European Air Traffic Management (ATM) and other identified air navigation services for the ECAC area to the year 2015.

The strategy also recognises that co-ordination will be necessary with external bodies (EU, ICAO, FAA, JAA etc.).

## **4. COMPONENTS OF THE STRATEGY**

The communication strategy addresses communication services, subdivided into:

- Data communications services, providing end-to-end connectivity (application to application) and broadcast capability for air-ground, air-air, and ground-ground application purposes.
- Voice communications services, providing the end-to-end and broadcast voice capability for air-ground, air-air and ground-ground purposes.

and the supporting network services, subdivided into:

- The Pan-European Fixed Network Services, (PENS) providing the international ground telecommunications infrastructure by the interconnection of national infrastructures for voice and data, including network systems management, end-to-end voice and data integrity, switching and routing, multiplexing and message handling.
- The Mobile Network Services, (MNS) providing the communications links between mobiles (aircraft or vehicles) and between mobiles and ground elements, for voice and data over wireless links (radio, satellite and other), including network systems management.