

C-AMHS: ATS MESSAGE HANDLING SYSTEM

OBJECTIVES.

This course covers AMHS messaging techniques and their applications in ATM. It provides a detailed explanation of how to migrate from the current AFTN/CIDIN to the new AMHS systems, and the latter's new capabilities from both technical and operational perspectives.

It also addresses related strategic developments in different ICAO Regions.

WHO SHOULD ATTEND.

This course will be directed to:

- **Engineering, Technical and/or Maintenance** professionals of an Air Navigation Service provider (ANSP) that are involved in the design, installation and/or operation of current AFTN systems and its evolution to AMHS systems.
- **CNS/ATM sector companies staff** requiring knowledge of this new technology defined by ICAO (AMHS) to evolve their current systems based on AFTN/CIDIN or, simply, a more accurate view that allows to take a leader position in order to generate more complete Offers bidding to the Call For Tenders launched by the ANSPs.

KEY BENEFITS OF ATTENDING.

You will:

- **Learn** AMHS technology for ATS implementation.
- **Understand** the principles for designing the migration to AMHS systems.
- **Know** the technical and operational specifications of an AMHS system.
- **Practise** the implementation of operational procedures.
- **Win** experience and know-how implementing AMHS systems.

HIGHLIGHTS

Technical course based on a wide experience deploying systems and services based on AMHS.

Practical explanations based on current operational implementations.

Practical exercises to settle down theoretical concepts.

Ideal course for students with little, middle or high background on Messaging Networks (AFTN/CIDIN/AMHS) due to the customization performed by the Trainer.

Recommendable course for designers, implementers, developers and professionals within the aeronautical CNS/ATM sector.

COURSE PRE-REQUISITES.

Knowledge about AFTN/CIDIN technology.

ABSTRACT.

The material contained in the course are going to:

- Provide technical criteria to be able to design the migration of AFTN/CIDIN systems to AMHS.
- Provide experience about strategies for migrating AFTN users and applications to AMHS.
- Provide experience about the definition of AMHS system management tools.
- Provide experience defining operational procedures for AMHS operation.

TABLE OF CONTENTS.

- 1) Communications Technology revision. ATN concept.
- 2) Description of AMHS systems.
- 3) Types of AMHS users. Migration strategy from AFTN to AMHS.
- 4) Example of an operational ANSP implementation.
- 5) AMHS Management Tools.
- 6) AMHS 'Off-line' Management Systems: AMC application. Operational procedures.
- 7) AMHS Common Infrastructure:
 - Networks (IPv4, IPv6, ATN)
 - X.500 Directory services.
 - ICAO Inter-Regional Gateways.
 - AMHS Test Tools.
 - International Coordination and Implementation Working Groups.
 - Security.
- 8) AMHS Operational issues:
 - Addressing (XF, CAAS).
 - ICAO Registry (procedures).
 - AMHS Topology and Routing.
 - Addressing and Routing Changes procedures.
 - Conversion between AFTN and AMHS objects.
 - AFTN to AMHS Operational migration procedures.
 - Operational parameters optimization (P1 associations, timers, ...).
- 9) Migration from AFTN to AMHS.