

# C-DATALINK

## OBJECTIVES.

This course gives an overview on DATALINK understanding which are the main components of a Datalink system, which technologies support Datalink and what Datalink services are currently available and how they work.

The course explains the different technologies used to provide Datalink (FANS and ATN), addressing the differences between both technologies.

## 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 DATALINK systems.
- **CNS/ATM sector companies staff** requiring knowledge of this system to deploy a Datalink system, implement Datalink solutions or develop and improve customized Datalink solutions. It is also recommended for technical staff working for aeronautical companies who want to address Datalink from a global perspective.

## KEY BENEFITS OF ATTENDING.

You will:

- **Learn** the concepts in which DATALINK is based.
- **Understand** the principles and main subsystems to design and deploy a DATALINK network.
- **Know** the European standards and technical specifications in which Datalink is based.
- **Practise** implementing ATN addressing.
- **Win** experience and know-how designing DATALINK systems.

## HIGHLIGHTS

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

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 Datalink 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.

Basic knowledge about IP and OSI.

## ABSTRACT.

This training course addresses Datalink from the very beginning assuming that the attendees do not have any background in this field.

It provides the attendees with a technical and regulatory framework explaining them what Datalink is and why it is needed. The course explains the different technologies used to provide Datalink (FANS and ATN), addressing the differences between both technologies.

Additionally, the course allows the trainees to get introduced into the concept of ATN: Aeronautical Telecommunication Network. It describes what ATN is what the benefits of this technology are, what kind of Air/Ground subnetworks are used, etc. The training course explains what the CM and CPDLC applications are and what services are offered within these applications.

The course provides the example of a VDL2 roll-out undertaken by some ANSPs in Europe addressing the chosen topology, the infrastructure deployment, and, finally the service provision model.

The training course also focuses on international Datalink programs explaining the reasons and needs for each of these programs as well as their outcomes. This is useful to understand the current European regulation known as Implementing Rule 29/2009 which lays down the Datalink requirements for both ANSPs and Airspace Users.

Finally, the course provides an overview of the current ATN roadmap based on the work developed so far by the joint working group between EUROCAE and RTCA known as WG-78/SC-214.

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