

## Electrical Wiring Interconnection Systems (EWIS) Factsheet

### Introduction

This short fact sheet has been produced by LRTT to provide individuals, operators and MRO companies guidance on the training requirements associated with ED Decision 2008/007/R of 29/08/2008 and to illustrate the cost effective training solution that can be delivered by LRTT as an EASA Part 147 Approved Training Organisation.

**Note:** Although training is not required to be EASA approved by the ED Decision, LRTT status as an EASA Part 147 approved training organisation should provide comfort to clients regarding the quality of the product being offered.

The ED Decision has been in force since September 2008 and its purpose is to: *'improve the airworthiness code for large aeroplanes and the requirements for continued airworthiness in the field of electrical wiring interconnection systems since failures in those systems have been identified as causal factors in several incidents and accidents involving large aeroplanes'*. There are also associated acceptable means of compliance, AMC 20-21, 20-22 and 20-23 which provide clear instructions on the incorporation of the ED Decision.

### The Training Requirement

This is mandatory training and is aimed at various target groups categorised 1-8 by the ED Decision and described in detail in the table on page 2 of this factsheet. Also included is the LRTT interpretation of these descriptions and the LRTT training solution.

Modules included in the training are as follows:

Module A	General EWIS Practices
Module B	Wiring Practices Documentation
Module C	Inspection
Module D	Housekeeping
Module E	Wire
Module F	Connective Devices
Module G	Connective Device Repair

### The Regulatory View

As the ED Decision has been in force since September 2008 the regulatory authorities, when auditing for continuing airworthiness, require any person undertaking EWIS related tasks according to the Aircraft Maintenance Manual to be compliant with the ED Decision and to have received the mandatory training.



Target Group	Description as per ED/2008/007/R	LRTT Interpretation (Agreed by the UKCAA)	Modules Required	LRTT Training Solution
1	Qualified staff performing EWIS maintenance. These staff members are personnel who perform wiring systems maintenance and their training is based on their job description and the work being done by them (e.g. avionics skilled workers or technicians cat B2).	<b>Full B1.1 (no limitations), B2 and unlicensed avionic mechanics</b>	<b>Full Modules A, B, D, F, G Part Modules C, E</b>	<b>Theory by LRTT, CBT, E-Learning solution appropriate to target group One day practical training at client site or on 'open' courses at LRTT</b>
2	Qualified staff performing maintenance inspections on wiring systems. These staff members are personnel who perform EWIS inspections (but not maintenance) and their training is based on their job description and the work being done by them (e.g. inspectors / technicians cat B2).	<b>As per Target Group 1 when the local job description specifies inspection only</b>	<b>Full Modules B, C, E, F Part Modules A, D</b>	<b>Theory only LRTT, CBT, E-Learning solution appropriate to target group</b>
3	Qualified staff performing electrical/avionic engineering on in-service aeroplanes. These staff members are personnel who are authorised to design EWIS installations, modifications and repairs (e.g. electrical / avionic engineers).	<b>Part M and Part 21 personnel</b>	<b>Full Modules B, E, F Part Module D</b>	<b>Theory only LRTT, CBT, E-Learning solution appropriate to target group</b>
4	Qualified staff performing general maintenance/inspections not involving wire maintenance (LRU change is not considered wire maintenance). These staff members are personnel who perform maintenance on aeroplanes that may require removal/reconnection of electrical connective devices (e.g. inspectors/technicians cat A or B1).	<b>Limited B1.1 (limitations 1 and 9), Cat A1 and unlicensed mechanics</b>	<b>Full Modules A, D Part Modules C, E</b>	<b>Theory only LRTT, CBT, E-Learning solution appropriate to target group</b>
5	Qualified staff performing other engineering or planning work on in-service aeroplanes. These staff members are personnel who are authorised to design mechanical/structure, systems installations, modifications and repairs, or personnel who are authorised to plan maintenance tasks.	<b>Part M and Part 21 personnel</b>	<b>Full Module C Part Modules D, E</b>	<b>Theory only LRTT, CBT, E-Learning solution appropriate to target group</b>
6	Other service staff with duties in proximity to EWIS. These staff members are personnel whose duties would bring them into contact/view of aeroplane wiring systems. This would include, but not be limited to: aeroplane cleaners, cargo loaders, re-fuelling staff, lavatory servicing personnel, de-icing personnel, push back personnel.	<b>As per ED description</b>	<b>Part Modules A, C, D, E (Low level only)</b>	<b>Theory only LRTT, CBT, E-Learning solution appropriate to target group</b>
7	Flight deck crew	<b>As per ED description</b>	<b>Part Modules A, C, D, E (Low level only)</b>	<b>Theory only LRTT, CBT, E-Learning solution appropriate to target group</b>
8	Cabin crew	<b>As per ED description</b>	<b>Part Modules A, C, D, E (Low level only)</b>	<b>Theory only LRTT, CBT, E-Learning solution appropriate to target group</b>