

14-15 June 2011

Cobham Technical Services
AccessERA



NEW COURSE - Aerospace equipment is required to operate in harsh electromagnetic environments. These include High Intensity Radiated Fields (HIRF), the effects of lightning strikes and on-board electromagnetic conditions. Correctly designed and installed aerospace equipment, qualified to aircraft certification standards and specifications, is essential to maintain functional safety and high integrity operation.

This intensive two-day training course is for aerospace equipment designers and aircraft manufacturers. The course provides an overview of EMC and lightning protection design procedures within the aerospace environment. An explanation of EMC, HIRF and the indirect effects of lightning strikes will be provided, together with an understanding of the standards related to these phenomena. Specific equipment design techniques to reduce the effects of EMC problems will be covered. The course will also highlight the issues related to equipment testing and provide guidance on EMC and lightning management procedures that can be employed.

Your programme

Day one

08.45 Registration and refreshments

09.00 Introduction

- EMC/HIRF effects on aircraft
- Lightning effects on aircraft.

Electromagnetic Environments

- External HIRF environments
- Intra-system EMC environments
- Characteristics of lightning and its interaction with aircraft.

Refreshments

Aircraft Certification, Standards and Specifications

- HIRF
- Intra-system EMC
- Lightning.

Lightning Effects on Aircraft Installations

- Mechanisms of transients
- Coupling in metallic/composite aircraft
- Shielding and wire routing
- Demonstration of coupling effects and waveforms.

Lunch

Equipment Design for E3 (Electromagnetic Environmental Effects): Part 1

- Equipment design
- Sources and coupling mechanisms
- Suppression and filters.

Refreshments

- Shielding.

16.00 Close.

Day two

08.45 Refreshments

09.00 Equipment Design for E3: Part 2

- Grounding
- PCB design
- PCB modelling and measurement
- Design for ESD immunity.

Refreshments

Testing Method Overview

- HIRF/EMC test methods
- Lightning indirect effects.

Lunch

Test Plans

EMC, HIRF and lightning management

Refreshments

Workshop/Discussion

16.00 Close.

Related courses:

Introduction to Lightning Protection 3 March 2011

For more information or to book a place on any of these courses, please visit: <http://shop.era.co.uk>

ERA Technology Ltd trading as Cobham Technical Services is a UK Government BIS (formerly known as BERR) appointed Notified Body for EMC.

Ever thought about in-company training?

This course can be delivered at your site. To discuss your training requirements, please call The Events Team on +44 (0)1372 367319.



Your speakers



Michael Airey - EMC Consultant, Cobham Technical Services

Michael is an EMC Consultant within the EM & RF Assessments business of Cobham Technical Services. He has over twenty years experience in aircraft design, development, safety analysis, test and verification for electromagnetic effects.



Stephen Haigh - Principal Scientist, Cobham Technical Services

Stephen is the Principal Scientist within the Lightning Test & Consultancy business of Cobham Technical Services. He has contributed substantially to the writing of international lightning standards for aerospace.



Adam Bullivant - EMC Consultant, Cobham Technical Services

Adam is an EMC Consultant within the EMC & RF Assessments business of Cobham Technical Services. His experience includes EMC design consultancy, control planning, measurement investigation, computer modelling and risk assessment.

Booking form

Please photocopy this form if you wish to register more than one delegate. Send a second person at a discounted price!

Delegate details

Name <small>Dr Mr Mrs Miss</small>
Job Title
Organisation
Address
Postcode
Telephone
Fax
E-mail
VAT number <small>(EU customers only)</small>
<input type="checkbox"/> Please tick if you are happy to receive further information about Cobham Technical Services via e-mail. It is our policy NOT to supply your details to third parties.

Bookings

I wish to make a firm booking for:

Aerospace EMC and Lightning

14-15 June 2011 Ref: 31123

Fees*

Fee rate	Fee	VAT@17.5%	Total	Please tick
Early Booking Rate	£720.00	£126.00	£846.00	<input type="checkbox"/>
Standard Rate	£800.00	£140.00	£940.00	<input type="checkbox"/>

*AccessERA subscribers and additional delegates receive a 10% discount on these rates. For more information on booking rates, please go to: <http://shop.era.co.uk>. If you subscribe to AccessERA and would like to use your AccessERA credits to attend, please contact The Events Team on: +44 (0)1372 367319.

Payment method

Purchase order no.....

Payment of £..... is enclosed **OR** please charge to:
Access/American Express/Delta/Diners Club/Eurocard/Mastercard/Switch/Visa

Name of cardholder.....

Card number

Expiry date Issue No

Payment has been made by bank transfer

VAT registration no: GB 209 7152 66

For AccessERA use only Project No 40003 _____

Invoice Paid AccessERA credits

BC12..... Date.....

Venue:

Your course will take place at Cobham Technical Services, Cleeve Road, Leatherhead, Surrey KT22 7SA, UK. It is a 15 minute walk from Leatherhead main-line station. Visitor car-parking is available on-site. A location map and directions are available at: www.era.co.uk/location.

Early booking rates:

Early booking rates are valid up to one calendar month before the date of the course and can only be claimed at the time of booking.

Additional booking rates:

Additional booking rates are applicable to second and subsequent delegates and may only be claimed at the time of booking.

Did you know?

An AccessERA subscription is an excellent way of accessing technical advice and information in the right format at the right time. All AccessERA subscribers receive a 10% discount on the current course price at time of booking, when the booking is made directly with the Events Team. To find out more, please call us on: +44 (0)1372 367319 or e-mail: era.accessera@cobham.com.

Ways to book:

- <http://shop.era.co.uk>
Total security is assured and normal booking conditions apply.
- +44 (0)1372 367319 - please be prepared to quote a purchase order number or supply us with credit card details.
- +44 (0)1372 367009*
- The Events Team, Cobham Technical Services, Cleeve Road, Leatherhead, Surrey KT22 7SA.

* Please note that booking forms received without payment will be considered binding and invoiced automatically.

Enquiries:

Please contact The Events Team by calling: +44 (0)1372 367319 or e-mail: era.events@cobham.com.

How to pay:

Payment must be made before attendance at the event and must be made in £ sterling only. Acceptable methods of payment are by cheque (payable to ERA Technology Ltd), credit card or bank transfer. Bank transfers, free of all charges, can be made to ERA Technology Ltd via: Barclays Bank PLC, PO Box 1824, Wimborne, Dorset, BH21 1YJ; sort code: 20-96-96, account no. 00327433. When paying by bank transfer, please quote the relevant course, reference number and the delegate and company name.

Cancellations and transfers:

Cancellations and transfers must be received in writing. Cancellations and transfers received up to the 15th working day prior to the event will be subject to a charge of 20% of the invoiced course fee + VAT or 20% of the AccessERA credits charged. After this, 15 day deadline transfers cannot be accepted and cancellations will be subject to payment in full or 100% of the AccessERA credits charged. Substitutions can be made at any time.

Cobham Technical Services:

Cobham Technical Services works at the leading edge of advanced technology consultancy and design. The business provides specialist, high value-added, technology-based services including design and development, testing, assessment and expert advice. For further information visit: www.cobham.com/technicalservices.

Please tick here if you would prefer not to receive details about future events or services offered by Cobham Technical Services.

ERA Technology Ltd reserves the right to change, postpone or cancel at short notice any part of its published programme due to unforeseen circumstances. In the unlikely event of cancellation, a full refund will be made of the registration fee. ERA Technology Ltd disclaims any further liability. ERA Technology Ltd's Special Terms and Conditions - Conferences and Courses apply. E & O.E. ERA Technology Ltd trading as Cobham Technical Services.