

OVERVIEW

'Practical Airframe Fatigue and Damage Tolerance' is a two module, five day course aimed at Stress Engineers, Repair/Design Engineers, Compliance Verification Engineers and Licensed Aircraft Engineers. It shows how fatigue and damage tolerance theory is applied in practice to typical civil aircraft structures.

The first module covers the information required to equip an engineer to carry out fatigue and damage tolerance calculations as an informed member of a supervised team using defined methods and working practices. The workings of the common program types are also explained so that these are no longer 'black boxes'.

The second module gives a more detailed understanding of some of the more involved topics, such as loading spectrum generation, damage tolerance calculation methods as applied to single load path/multiple load path structure and its application to typical structural configurations. This will allow engineers to have a good understanding of the more detailed procedures that are used in the calculations and to begin to function independently.

The last two years have seen an update of material in terms of incorporating information relating to the revision of CS 25.571 and the upcoming CS 26.300. This year will give a bigger overview of F&DT of composites.

DATES (Mon - Thurs 8.00am to 4.30pm; 3.00pm finish Friday)

Code PDT2018 14 - 18 May 2018

(The modules can also be delivered as a separate in-house course – please contact <u>training@sigmak.ltd.uk</u>, fill out a contact form at <u>www.sigmak.ltd.uk</u> or telephone 01292 571345 to discuss your requirements).

COST

Modules A and B – £1455 per person ex VAT (duration: five days – please see Booking Form)

A paper copy of the presentation material will be provided, with a full set of bound notes for delegates. All prices include morning/afternoon tea/coffee and biscuits, and a buffet lunch (please notify special dietary requirements in advance).

PLACES

Please note that because of the emphasis on 'hands on' calculations, places will be limited to 18 per module and places will be allocated on a first come, first serve basis. Attendees must arrange their own Visa, if one is required.

PRESENTER

Les Bent BSc MSc CEng MIMechE has over 29 years of practical experience in fatigue and damage tolerance analysis, research, testing and failure investigation. This followed a BSc (Hons) in Metallurgy from the University of Manchester and includes an MSc in Aerospace Materials Engineering from the Cranfield Institute of Technology. Starting as a Metallurgist with Renault Truck Industries Ltd, he subsequently worked at British Aerospace Regional Aircraft (Woodford), in both the Research and Structures Departments before moving to the Jetstream Aircraft (Prestwick) Stress Office. After a period of contract work as a Stress Engineer, including a year at Boeing Commercial Aircraft at Renton, he set up Sigma K Ltd in 2000.

LOCATION

The course will take place at IWM Duxford. Complimentary daily access to the museum is included in the price (last admission 5pm, closes at 6pm).



BOOKING FORM

Practical Airframe Fatigue and Damage Tolerance Code PDT2018 (14 - 18 May 2018)

To register, delegates should send this completed booking form to Les Bent as detailed below (Terms and Conditions attached).

Delegate's details (please use a separate form for each delegate, if more than one)

Title	Mr	Mrs	Miss	Dr	Other (please specify)	
First name					Surname	
Job T	itle _					
Email						
Comp	bany d	letails				
Comp	any na	ame				
Comp	any a	ddress				
Line 1						
Line 2	2					

Town	County/Region
Country	Postcode/Zipcode

Contact telephone number

I would like to make a booking for the above delegate on the following module(s), subject to availability (please tick as applicable)

Module(s)	Date	Cost (£)
		(exc. VAT)
A+B	14 - 18 May 2018	` 1455

I have read and I accept the Contract Terms and Conditions

Authorised	Signed	Date

Purchase Order Number: _____

Please return to: PDT2018, Sigma K Ltd, 44 Hole Road, Coylton, KA6 6JL, or email a pdf copy of the completed form to <u>lesbent@sigmak.ltd.uk</u>.



CONTRACT TERMS AND CONDITIONS

1. PARTIES

- 1.1 Confirmation of receipt of the BOOKING FORM by Sigma K Ltd shall constitute a contract between
 - a. Sigma K Ltd, a company registered in Scotland with registered number SC202240, hereinafter referred to as SKL and
 - b. The Company as set out in the BOOKING FORM, or if the attendee is an individual, the individual attendee set out within the BOOKING FORM (hereinafter referred to as the "Customer").

hereinafter referred to as a Party, or together as the Parties.

2. CONTRACT AND PRECEDENCE

- 2.1 The contract shall consist of
 - a. The BOOKING FORM and
 - b. These Terms and Conditions 1 to 4, and
- 2.2 In the event of a conflict between the elements defined under Clause 2.1, the order of precedence shall be:a. These Terms and Conditions 1 to 4
 - b. The BOOKING FORM

3. CANCELLATION

- 3.1 Cancellation of a booking by the Customer shall be chargeable as set out below:
 - a. for cancellations two weeks or less prior to the course start data the Customer shall be liable to pay SKL the per delegate course fee in full for each delegate.
 - b. for cancellations greater than two weeks out but no more than four weeks prior to the course start date the Customer shall be liable to pay SKL fifty percent (50%) of the per delegate course fee for each delegate.
 - c. for cancellations greater than four weeks prior to the course start date no cancellation charge shall be payable.
 - d. if a Customer has made a booking for a delegate and that particular delegate is unable to attend, the Customer may substitute another delegate in lieu; cancellation of any such substitute booking is still subject to the conditions in Clause 3.1 a to c.
- 3.2 If a booking is required to be cancelled in accordance with Clause 3.1 and SKL has already received payment from the Customer, SKL shall return the sum due in accordance with the provisions set out in Clause 3.1 and 3.3.
- 3.3 Where SKL is to refund monies to the Customer in accordance with Clause 3.2, SKL shall repay such monies minus an administration charge of 2.5% of the total per delegate course fee for each delegate cancelled.
- 3.4 Provision of this course by SKL is conditional upon a minimum number of delegates booking onto the course.
- 3.5 Where the minimum number of delegates is not achieved in accordance with Clause 3.4, or if SKL chooses to re-arrange or cancel the course for any reason whatsoever, which it may do at its sole discretion, then the provisions of sub-clauses 3.5.1 to 3.5.2 shall apply:
 - 3.5.1 Where SKL cancels the course, SKL shall return any monies to the customer in full.
 - 3.5.2 Where SKL re-arranges the course, any monies already paid to SKL by the Customer shall remain valid payment for the re-arranged course providing payment was received in full by SKL. If payment is not received in full, the customer shall remain liable to pay SKL the outstanding balance. If the Customer cannot attend the re-arranged date for any reason, SKL will return any monies already paid to SKL.
- 3.6 SKL shall not be liable in any way, or for any additional reimbursements to the Customer, other than as set out in Clause 3.5 in the event of SKL cancelling or re-arranging the course.

4. PAYMENT

- 4.1 Payment in full must be received by SKL in advance.
- 4.2 Upon receipt of the BOOKING FORM SKL will invoice the Customer for payment in full. Such invoice will contain all details required to make payment.