

# **Flight Simulation Conference 2015**

## Challenges in Flight Simulation

London, United Kingdom  
9-10 June 2015

ISBN: 978-1-5108-1646-6

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2015) by Royal Aeronautical Society (RAeS)  
All rights reserved.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact Royal Aeronautical Society (RAeS)  
at the address below.

Royal Aeronautical Society (RAeS)  
No. 4 Hamilton Place  
London  
W1J 7BQ  
United Kingdom

Phone: +44 (0) 20 7670 4300

[raes@aerosociety.com](mailto:raes@aerosociety.com)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

# TABLE OF CONTENTS

## DATA CHALLENGES

<b>TRENDS IN SIMULATOR DATA PACKAGES AND TRAINING IN THE EXTENDED ENVELOPE</b> .....	1
<i>K. Williams</i>	
<b>OPERATIONS TRAINING TRANSMISSION - OTT</b> .....	8
<i>E. Fuilla-Weishaupt</i>	
<b>THE NEW PARADIGM OF BLACK BOXES</b> .....	11
<i>X. Morizot</i>	
<b>CHALLENGES OF SIMULATOR DATA PACKAGE'S FOR MILITARY &amp; GOVERNMENT COMMERCIAL DERIVATIVE PROGRAMS</b> .....	20
<i>R. A. Long</i>	

## FSTD QUALIFICATION TESTING

<b>THE FLIGHT SIMULATION TRAINING DEVICE QUALIFICATION TEST GUIDE</b> .....	25
<i>B. Hampson</i>	
<b>VALIDATION AND QUALIFICATION OF SIMULATORS FOR MODERN LARGE AIRCRAFT</b> .....	32
<i>B. Mattos</i>	
<b>FSTD QUALIFICATION TESTING - THE PILOT'S PERSPECTIVE</b> .....	42
<i>J. O'Halloran</i>	
<b>DATA CHALLENGES – THE REGULATORS VIEWPOINT</b> .....	47
<i>A. Gillbard</i>	
<b>THE MODERN QTG - WHERE THE DEVIL REALLY IS IN THE DETAIL</b> .....	51
<i>R. J. Earp, M. Blackwood</i>	
<b>FSTD QUALIFICATION TESTING - A TRAINING DEVICE MANUFACTURER'S PERSPECTIVE</b> .....	60
<i>R. Pritchard</i>	

## MOTION

<b>OBJECTIVE MOTION CUEING CRITERIA INVESTIGATION BASED ON THREE FLIGHT TASKS</b> .....	69
<i>P. M. T. Zaal, J. A. Schroeder, W. W. Chung</i>	
<b>NEXT GENERATION MOTION SYSTEM</b> .....	81
<i>J. Flinois</i>	
<b>CHALLENGES IN ROLL-SWAY MOTION CUEING FIDELITY: A VIEW FROM ACADEMIA</b> .....	88
<i>S. J. Hodge, S. Manso, M. D. White</i>	

## SIMULATION AS A SERVICE

<b>SIMULATION AS A SERVICE: CONTEXT &amp; NEED - A NATO &amp; UK GOVERNMENT (S&amp;T) PERSPECTIVE</b> .....	108
<i>M. Mifsud</i>	
<b>SIMULATION IN THE CLOUD - BENEFITS, CHALLENGES AND LESSONS LEARNED</b> .....	115
<i>A. Fawkes</i>	

## MISSION/SITUATIONAL AWARENESS TRAINING

<b>INDUCING A STATE OF FLOW IN SIMULATOR TRAINING ACHIEVING MAXIMUM LEARNING TRANSFER</b> .....	128
<i>T. D. Ball</i>	

<b>KEEPING IT REAL - TRAINING FOR RESILIANCE IN THE DATA AGE</b> .....	139
<i>Charlie Cantan</i>	
<b>5TH GEN MISSION TRAINING &amp; THE F-35 TRAINING SYSTEM</b> .....	143
<i>A. E. Ross</i>	
<b>DESIGNING CUSTOMISED 3D MOBILE AVIATION SIMULATION TO PREPARE FOR THE FUTURE</b> .....	150
<i>G. Whitehurst</i>	
<b>Author Index</b>	