



CONFERENCE PROGRAMME

ROTORCRAFT SIMULATION - TRENDS AND FUTURE APPLICATIONS



DAY ONE - TUESDAY 12 NOVEMBER 2019

08:30 **Registration and Refreshments**

09:00 **WELCOME & OPENING REMARKS**

Speakers: James Kenny MRaES, Managing Director, Cursive Simulation and RAeS Flight Simulation Group and Mark White MRaES, Senior Lecturer, Mechanical, Materials & Aerospace Engineering, University of Liverpool and RAeS Flight Simulation Group

09:05 **KEYNOTE: UK DEFENCE HELICOPTER FLYING SCHOOL**

Speaker: Wg Cdr (retd) Harry Palmer, General Manager, RAF Shawbury for UK MFTS

09:30 **SESSION ONE: ROTORCRAFT OPERATIONS AND SIMULATION NEEDS**

09:35 **1) MISSION SIMULATION AND UK POLICE OPERATIONS - THE FUTURE**

Speaker: Jim Polwarth, Head of Training, NPAS

10:00 **2) HM COASTGUARD TRAINING, USE OF SIMULATION, AND PLANS FOR FUTURE**

Speaker: Russell Torbet, Director, UK Search & Rescue, Bristow Group

10:25 **Networking Refreshment Break**

10:55 **3) REDEFINING ROTORWING SIMULATION TO ENHANCE HEMS OPERABILITY**

Speaker: Rory Cunningham, Operations Officer, Alpha Aviation

11:20 **4) TBC**

Speaker: TBC

11:45 **5) JHC CREW SERVED WEAPON GUNNERY SIMULATOR - NAILING THE USER REQUIREMENT**

Speaker: WO Des Sheppard-Clayton, Aviation Training Manager, UK Ministry of Defence

12:10 **PANEL DISCUSSION**

12:30 **Networking Lunch**

13:30 **SESSION TWO: ROTORCRAFT MODELLING AND FIDELITY**

13:35 **6) THE NEED FOR EXTENDING THE ENVELOPES OF ROTORCRAFT SIMULATORS**

Speakers: Dr Sunjoo Advani FRaES, President, IDT Engineering and Mark White MRaES, Senior Lecturer, Mechanical, Materials & Aerospace Engineering, University of Liverpool and RAeS Flight Simulation Group



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- 14:00 **7) DESIGN AND DEVELOPMENT OF MODELLING AND SIMULATION TOOLS TO INFORM SHIP-HELICOPTER**
Speakers: *Wajih Memon, PhD Student and Neale Watson, PhD Student, University of Liverpool*
- 14:25 **8) THE CONTRIBUTIONS OF MODERN ROTARY WING AERODYNAMIC MODELLING AND MINI MOTION VIBRATIONS/CUEING TO HIGHER FIDELITY ROTORCRAFT SIMULATION**
Speaker: *Tom Beers, Senior Software Engineering Manager, TRU Simulation*
- 14:50 **PANEL DISCUSSION**
- 15:05 **SESSION THREE: MISSION TRAINING AND STANDARDS**
- 15:10 **9) NEVER MIND THE REGULATIONS, WHAT ARE THE TRAINING ISSUES WE NEED TO SOLVE?**
Speaker: *Capt Rick Newson, Flight Operations Manger, UK CAA*
- 15:40 **Networking Refreshment Break**
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- 16:10 **10) ROTORCRAFT SIMULATION CAPABILITIES AT RNAS YEOVILTON**
Speaker: *Ray Rawbone and Brian Marsh, Leonardo Helicopters*
- 16:35 **11) EFFECTIVE TRAINING TECHNOLOGIES FOR HELICOPTER AIRCREWS**
Speaker: *Shiela Jaszlics, President, Pathfinder Systems Inc*
- 17:00 **PANEL DISCUSSION**
- 17:25 **CLOSING REMARKS**
Speakers: *James Kenny MRAeS, CEO, Cursive Simulation and RAeS Flight Simulation Group and Mark White MRAeS, Senior Lecturer, Mechanical, Materials & Aerospace Engineering, University of Liverpool and RAeS Flight Simulation Group*
- 17:30 **REGISTRATION AND REFRESHMENTS**
- 18:00 **EDWIN A LINK MEMORIAL LECTURE**
Speaker: *Mike O'Donoghue CBE FRAeS, Chief Executive, General Aviation Safety Council*
- 19:00 **NETWORKING RECEPTION**



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DAY TWO - WEDNESDAY 13 NOVEMBER 2019

08:30 **Registration and Refreshments**

09:00 **WELCOME & OPENING REMARKS**

Speakers: James Kenny MRAeS, CEO, Cursive Simulation and RAeS Flight Simulation Group and Mark White MRAeS, Senior Lecturer, Mechanical, Materials & Aerospace Engineering, University of Liverpool and RAeS Flight Simulation Group

09:05 **KEYNOTE: AIR TAXIS AND UNMANNED AIR CARGO**

Speaker: J. Scott Drennan, Vice President of Innovation, Bell Flight

09:30 **SESSION FOUR: UNMANNED AND ELECTRIC VTOL**

09:35 **12) FURTHER DEVELOPMENT OF SYNTHETIC ENVIRONMENTS TO SUPPORT THE EARLY EVALUATION OF UNMANNED ROTARY WING VEHICLES**

Speaker: Dr Binoy Manimala, Leonardo

10:00 **13) THE USE OF HIGH FIDELITY MODELING AND SIMULATION FOR THE STUDY OF FUTURE MOBILITY NETWORKS**

Speaker: Egan Greenstein, Senior Director, Boeing NeXt Analysis and Experimentation

10:25 **Networking Break**

10:55 **14) QUANTIFYING LIVE VS SYNTHETIC TRAINING**

Speaker: Capt David Harris, Head of Aviation Standards, Babcock International Group

11:20 **PANEL DISCUSSION**

11:45 **SESSION FIVE: UNMANNED AND ELECTRIC VTOL**

11:50 **15) FLIGHT DATA GATHERING FOR HELICOPTER FSTD DEVELOPMENT AND VALIDATION**

Speaker: Peter Tarttelin MRAeS, MD and Consultant, YourSim Ltd and Regine Pattermann, Head of Flight Test, RS Flight Systems GmbH

12:10 **Networking Lunch**

13:10 **16) DEVELOPMENT OF A FULL FLIGHT SIMULATOR: CHALLENGES, SOLUTIONS AND LESSONS LEARNED**

Speaker: Dr Emma Timson, Flight Mechanics Engineer, Airbus Helicopters



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- 13:35 **17) TRAINING DEVICES - ORIGINALS AND REPLICATIONS - BOTH SIDES OF THE COIN**
Speaker: *Martin Keil, Head of Projects and Systems Engineering, Reiser Simulation*
- 14:00 **18) DRIVING ROTARY SIMULATOR EFFECTIVENESS THROUGH IMPROVING STANDARDS**
Speaker: *Nigel Gates, Test Pilot, Nova Systems*
- 14:25 **PANEL DISCUSSION**
- 14:45 **SESSION SIX: NON-TRAINING SIMULATION**
- 14:50 **19) MBDA - MISSILE SYSTEMS SIMULATION AND TRAINING**
Speaker: *Craig Eagles, Aircrew Training Advisor, MBDA*
- 15:15 **Networking Break**
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- 15:45 **20) SIMULATION IN SUPPORT OF UK CHINOOK INTEGRATION WITH QE CLASS CARRIERS**
Speaker: *John Goodby, SAI Systems Integrator, Chinook Delivery Team, DE&S, MoD*
- 16:10 **21) FLIGHT MODEL VALIDATION CRITERIA NECESSARY TO SUPPORT AFCS DEVELOPMENT AND QUALIFICATION**
Speaker: *TBC*
- 16:25 **PANEL DISCUSSION**
- 16:45 **CLOSING REMARKS**
Speakers: *James Kenny MRAeS, CEO, Cursive Simulations and RAeS Flight Simulation Group and Mark White MRAeS, Senior Lecturer, Mechanical, Materials & Aerospace Engineering, University of Liverpool and RAeS Flight Simulation Group*