# The 1st Annual UK Vertical Lift Network Technical Workshop

Nunsmere Hall Hotel, Oakmere, Cheshire 10-12 April 2015



# **Final Programme**

### Friday 10th April

10.00 - 15.00	VLN Meeting			
15.00 - 15.20	Keynote	Antonio Filippone	MAN	Introduction to the VLN Activities
15.20 - 15.45	- Aerodynamics 1	Dan Poole	BRI	High-Fidelity Simulation of Vortex Generators for Tiltrotor Aircraft Wings
15.45 - 16.10		Richard Green	GLA	The Clean Sky CARD project: wind tunnel measurements of a model helicopter rotor and fuselage drag
16.10 - 16.25	Coffee			
16.25 - 16.50	– Powerplants	Fakhre Ali	CRA	Multidisciplinary Design and Optimisation of Conceptual Rotorcraft Powerplants:
16.50 - 17.15		Nicholas Bojdo	MAN	Helicopter Environmental Engine Protection: Progress and Challenges
17.30 - 19.30	Dinner			

## Saturday 11th April

Coffee						
<b>Opening Remarks</b>	Antonio Filippone	MAN	1			
Elight Mashanias	Kevin Ferguson	GLA	Study of a Coaxial Compound Helicopter flying Mission-Task-Elements			
Fight Mechanics	Clement Crozon	LIV	Coupled CFD/Flight Mechanics method for SHOL			
Coffee						
Aerodynamics 2 /	Daniele Zagaglia	GLA	Experimental investigation of the aerodynamic interaction between a helicopter and ground obstacles			
	Giulia Chirico	LIV	Helicopter wake interaction with ground obstacles			
operations & nanuning	Yaxing Wang	LIV	Simulation of helicopter and wind turbine wake encounters with light aircraft			
Lunch						
Aerodynamics 3	Massimo Biava	LIV	Adjoint-based optimisation methods for rotorcraft blades			
	Mark Woodgate	LIV	Implicit Unstructured Methods for fuselage CFD analysis			
	Antonio Garcia	LIV	Tilt-rotor CFD using the Helicopter Multi-Block solver			
Coffee						
Dynamics	Djamel Rezgui	BRI	Non linearities in Rotating Blade Dynamics			
Dynallics	Vasilis Pastrikakis	LIV	Simulation of helicopter rotors equipped with Gurney flaps			
<b>Open Discussion / Close</b>		ALL				
Dinner						
	Coffee Opening Remarks Flight Mechanics Coffee Aerodynamics 2 / Operations & Handling Lunch Aerodynamics 3 Coffee Dynamics Open Discussion / Close	CoffeeAntonio FilipponeOpening RemarksAntonio FilipponeFlight MechanicsKevin FergusonClement CrozonClement CrozonCoffeeDaniele ZagagliaAerodynamics 2 / Operations & HandlingGiulia ChiricoLunchMassimo BiavaAerodynamics 3Mark WoodgateAerodynamics 3Mark WoodgateCoffeeDjamel RezguiVarius PastrikakisDjamel Rezgui	CoffeeImage: constraint of the systemOpening RemarksAntonio FilipponeMANFlight MechanicsKevin FergusonGLACoffeeImage: constraint of the systemImage: constraint of the systemAerodynamics 2 / Operations & HandlingDaniele ZagagliaGLAGuilia ChiricoLIVYaxing WangLIVLunchImage: constraint of the systemAerodynamics 3Massimo BiavaLIVAerodynamics 3Mark WoodgateLIVAntonio GarciaLIVOpen Discussion / CloseImage: constraint of the systemImage: constraint of the systemOpen Discussion / CloseImage: constraint of the systemImage: constraint of the system			

## Sunday 12th April

09.30 - 09.50	Coffee		
09.50 - 12.15	<b>Open Discussion / Walk</b>		
12.15 - 13.30	Lunch		
13.30 - 14.00	Closing Speech	Antonio Filippone	MAN

BRI - University of Bristol

CRA - Cranfield University

GLA - University of Glasgow

- LIV University of Liverpool
- MAN University of Manchester