

Unmanned Aircraft Systems Group Annual Conference (UASSG 2013)

Unmanned Aviation: Challenges for Growth

**London, United Kingdom
16-17 September 2013**

ISBN: 978-1-62993-276-7

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© (2013) by the Royal Aeronautical Society
All rights reserved.

Printed by Curran Associates, Inc. (2013)

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

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

Phone: +44 (0) 20 7670 4300
Fax: +44 (0) 20 7670 4309

www.raes.org.uk

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

UAS and the Law	1
<i>Peter Lee</i>	
Essential Requirements for RPAS.....	25
<i>Filippo Tomasello</i>	
Integrating RPAS into the European Aviation and ATM System - The ATM R&D Perspective.....	34
<i>Michael Standar</i>	
Unmanned Airborne Systems: Product Overview.....	41
<i>Dennis Muilenburg, Chris Chadwick, Mike Kurth</i>	
UAS Managed Services: Rapid, Flexible & Cost-Effective Capability.....	48
<i>Shai Shamrai</i>	
Unmanned Aerial Systems Quarry & Mine Surveys	54
<i>Mark Hudson</i>	
Saving Lives Offshore: Using UAVs for Critical Infrastructure Inspections in Hazardous Areas.....	72
<i>N/A</i>	
Geophysical Survey and Pipeline Monitoring	79
<i>Joseph Barnard</i>	
UAS Safety - To Blindly Follow Where Everyone Has Gone Before?.....	95
<i>Paul Chinneck</i>	
Airworthiness – A Systems Approach.....	115
<i>Michael Gadd</i>	
Sub20 Airworthiness: Is This Really Necessary?	128
<i>Andre Clot</i>	
3D Printing Beyond Prototyping: The Design, Optimization and Fabrication of Bespoke sUAS.....	139
<i>Chris Paulson, Andras Sobester, Jim Scanlan</i>	
The Need for Good Flight Training Schools.....	151
<i>John Moreland</i>	
Remote Pilot Flight Training in the UK.....	160
<i>Craig Lippett</i>	
2SEAS-Project “Spotter”	167
<i>Christoph Lutz</i>	
Unmanned Systems in Agriculture: URSULA	178
<i>Sue Wolfe</i>	
Virtual Engineering for the Certifiable Design of Autonomous Air Systems in the Terminal Areas.....	189
<i>Konstantin Vikhorev</i>	
Supporting the Future Integration of Unmanned Flight.....	203
<i>David Healey</i>	
Author Index	