

IET Seminar on Military Satellite Communications

(MILSATCOMS 2013)

IET Seminar Digests 2013/15343

**London, United Kingdom
14 June 2013**

ISBN: 978-1-62993-658-1

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 Institution of Engineering and Technology
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact the Institution of Engineering and Technology
at the address below.

Institution of Engineering and Technology
P. O. Box 96
Stevenage, Hertfordshire
U.K. SG1 2SD

Phone: 01-441-438-767-328-328
Fax: 01-441-438-767-328-375

www.theiet.org

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

The UK Milsatcom Capability	1
<i>A. Rayner</i>	
Skynet 5 - Technology Behind the Capabilities	15
<i>R. Greenwood</i>	
The Uncertain Future Needs of MILSATCOM	29
<i>Å Jonsson</i>	
NATO Vision and Strategy for Next Generation SATCOM Services	40
<i>M. Green</i>	
The Critical Role of Tactical Satcom in Deployed Operations	49
<i>A. Start, G. McMillan</i>	
Hosted Payloads (Utilising Available Power, Mass and Space): Growing Opportunity for Milsatcom	61
<i>G. Donelan</i>	
The Role of Small Satellites in Military Communications	71
<i>C. Saunders</i>	
The Threats and Hazards to Milsatcom and Possible Mitigation Techniques	78
<i>S. Eves</i>	
Resilience, Hardening and Protection of Milsatcom V2	88
<i>H. S. Jolly</i>	
Mitigating Threats Through Satellite and Antenna Design	102
<i>T. Ahmad</i>	
Future UK Milsatcom options: MoD Beyond Line of Sight (BLOS) Programme	110
<i>P. Ryan</i>	
Key Advances and Challenges in Terminal Design	122
<i>R. Pearson</i>	
Author Index	