



Defence Academy
of the United Kingdom



Cranfield
UNIVERSITY

Electronic Warfare Symposium 2013

The Electromagnetic Environment – An Operational Manoeuvre Space

4 - 5 December 2013



Electronic Warfare Symposium 2013

The Electromagnetic Environment – An Operational Manoeuvre Space

This year's EW Symposium is jointly sponsored by the Association of Old Crows, the AOC UK Chapter, Cranfield Defence and Security and the Defence Academy College of Management and Technology at Shrivenham. This event, which is in its ninth year, is organized and run by Symposia at Shrivenham and will follow a well-proven format of presentations and discussions in a relaxed atmosphere within secure surroundings with lunches and refreshments included. An inclusive formal Symposium Dinner will be held in the award-winning STEAM museum in Swindon.

Theme for 2013

The UK MOD has recently concluded its Electromagnetic Environment (EME) review and is already implementing far-reaching changes following on from NATO's EW transformation concept of 2007. The EME encompasses all electromagnetic disciplines, including: electromagnetic compatibility; electromagnetic interference; electromagnetic vulnerability; and electronic protection. Both MoD and NATO recognise the EME as a physical and vital war fighting manoeuvre space.

The Symposium will discuss the future of electromagnetic operations such as EW, C4ISR, and SIGINT within the context of the EME. Future operations are increasingly being realised in congested and contested complex environments across the spectrum of conflict in hot spots around the world, in cyberspace and counter-piracy and against terrorism everywhere. Forces from the 5-Eyes community are all changing in

response to the move from counter-insurgency to contingency operations and in the light of resources constraints and none more so than those engaged in the EME and EMO.

Following the format of previous EW Symposia, this Symposium will use a mix of invited and contributed papers. Many of the invited papers will have an operational bias related to the main theme. These will be interspersed with contributed papers that will be an opportunity for researchers, engineers and leaders in government, industry and academia to showcase their latest work in areas related to EW, C4ISR, cyber, spectrum management, SIGINT and other EMO capabilities, including threats; capabilities; platform, force and area protection; intelligence; advanced technology; integration, modelling and simulation. In recognition of the important contribution that the SME community makes across the EME, contributed papers from SMEs are particularly welcome

As in past Symposia, a large military presence is anticipated so this is an opportunity to hear and meet military personnel at the cutting edge of EMO from all services. Participation is particularly welcome from Australia, Canada, New Zealand and the United States. Senior leaders have been invited to the Symposium and Dinner.

Plenary sessions will be organised to provide an opportunity for the community to discuss the challenges facing electronic warfare and the EMO community with a view to finding cost-effective solutions for current and future opportunities. Open discussion is encouraged and programme timing is planned accordingly. There will be ample opportunity to network with like-minded defence professionals.

This year, the symposium will be classified at **SECRET 5-EYES: ALL attendees MUST have an appropriate clearance to attend the symposium.**

4 - 5 December 2013

Venue

Defence Academy
of the United Kingdom
Shrivenham

Submission of Papers

Original technical papers suitable for this Secret-level event are solicited for presentation on either day of this year's symposium. If you would like to contribute a paper, please go to our website at www.symposiaatshrivenham.com and click on **Abstract Form** on the event page (or complete the submission form in this document). Please complete and return it together with your **UNCLASSIFIED Abstract** of no more than 200 words by 1 November 2013.

Presentation of selected papers should take no more than 30 minutes, to include questions.

Timings and Registration

The symposium will be held at the Defence Academy of the United Kingdom at Shrivenham, starting at 1000hrs on Wednesday 4 December (with registration from 0900hrs) and finishing after tea on Thursday 5 December. If you wish to attend the symposium, please complete the attached Registration Form and return it to the address below before 1 November 2013. In order to keep the collegiate atmosphere of the symposium, attendance is limited.

Exhibition Space

We offer companies, departments and establishments an opportunity to use table top displays to advertise their capability or products. There are a limited number of spaces available.

Sponsorship

There are opportunities for sponsoring this event. The name of the sponsor, with logo, will appear in the symposium programme and will be advertised before each break in the programme. Depending on the level of sponsorship, additional benefits may include complimentary registration fees, display spaces, unique opportunity for long term commercial visibility – and more. Please contact us as soon as possible to discuss options of sponsorship and the benefits to be gained.

Abstract submission

If you would like to submit a paper on the theme described, please complete this form or go to www.symposiaatshrivenham.com and download an Abstract Form from the event page and send us your completed form with an abstract of your presentation.

Notes

1. Your presentation should be planned to take 20 minutes followed by questions.
2. Your abstract of 200 words should be typed and attached to this proforma please.
3. Please return your abstract by 1 November 2013.
4. Acceptance of papers will be notified as soon as possible.

Commercial Visibility



We are offering you the opportunity for long term commercial visibility, renewable every 12 months, on the wall space of the exhibition hall, the venue for refreshments during each of our events and indeed an increasing number of MOD prestigious events in the Defence Capability Centre at the Defence Academy.

Please visit www.symposiaatshrivenham.com for details.

Exhibition space

This symposium provides a highly targeted audience. Connect with your customers by displaying your equipment or advertising your capability during networking time on each day over refreshment breaks and lunches. A complimentary advertisement in the symposium programme is available to those who book display space.

To receive a 10% discount, please book and pay online from the EW event page at www.symposiaatshrivenham.com and click on 'Online Payment'. Alternatively, please complete and return this form.

Your completed application needs to be returned to us by 1 November 2013.

Please Note: Display personnel need to register as delegates if they wish to attend symposium presentations and meals and learn what their potential customers and colleagues are most interested in.

If you choose not to Book and Pay online, please fill in the details below and opposite and then return the form to us.

Please reserve the following display space (to include power sockets, chairs and tables). (tick as applicable)

- | | | |
|--------------------------|---------------------------------|-------|
| <input type="checkbox"/> | Single Space (3m x 2m) | £ 600 |
| <input type="checkbox"/> | Double Space (6m x 2m) | £ 950 |
| <input type="checkbox"/> | Outdoor Display Space (6m x 4m) | £ 950 |

Cheque

I enclose a cheque for £_____ payable to CRANFIELD UNIVERSITY

Invoice

Please invoice the company quoting Purchase Order No _____ (if applicable)

Telephone payment with Credit/Debit Card

I will call Symposia at Shrivenham on +44 (0) 1793 785529 with my credit/debit card details.

Title of paper:

Name of presenter:

Government Dept/Company:

Address:

Tel No:

Fax No:

E-mail:

Display Manager:

Company:

Address:

Tel No:

Fax No:

E-mail:

Please Note: Display personnel need to register as delegates if they wish to attend symposium presentations and formal dinner.

These forms, when completed, should be returned please to:

Mrs Lynn Anderson
Symposia at Shrivenham
DA-CMT Cranfield University
Defence Academy of the United Kingdom
Shrivenham
Swindon SN6 8LA, United Kingdom

Tel: +44 (0) 1793 785648

Fax: +44 (0) 1793 785325

E: lynn@symposiaatshrivenham.com

Further details of this symposium may be found on our website.

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TO BE RETURNED AS SOON AS POSSIBLE

Surname:

Firstnames:

Date of Birth:

Rank/Title/Decorations:

Nationality:

Position:

Company:

Address:

Post/Zip Code:

Country:

Tel No:

Fax No:

E-mail:

Your Purchase Order number (if required):

The Small Print

CANCELLATIONS. Substitutions are welcome and may be made at any time, at no charge, provided the organisers are informed prior to the start of the event. If you have to cancel your booking, please do so in writing to Cranfield University. Cancellation up to 10 working days prior to the start date is subject to a £100 administration fee, after which, regrettably, no refund can be made. Refunds will be processed after the event.

PROGRAMME CHANGES. It may be necessary, for reasons beyond the control of the organisers, to change programme content, speakers and/or timing of the event. Neither Cranfield University nor the Defence Academy is liable for any changes.

DATA PROTECTION. If you have received correspondence from us where the personal or company details are incorrect, please contact Symposia at Shrivenham so that we may update our records. Cranfield University gathers and manages data in accordance with the Data Protection Act 1998. The information may be used to update you on our other events and courses. Please tick this box if you do not wish us to do so. If requested, we would like to make your contact details available to other attendees at this event. Please tick this box if you do not wish us to do so

Full Terms & Conditions for Cranfield University apply and will be supplied on request.

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Registration and Costs

Registration

Please complete a Registration Form which may be found here or downloaded online from www.symposiaatshrivenham.com and click on Registration on the event page.

When completed, including the Security boxes, your form, with payment details, should be mailed to Symposia at Shrivenham, Defence Academy of the United Kingdom, Shrivenham, SN6 8LA.

Alternatively, please send your form by fax to +44 (0)1793 785325.

Costs

This includes lunch each day, dinner on 4 December and all beverages during symposium sessions

- | | |
|----------------------------------------------------------------------------|-------|
| <input type="checkbox"/> Speakers of Submitted Papers | £ 150 |
| <input type="checkbox"/> UK Core MOD/Military | £ 150 |
| <input type="checkbox"/> UK Government/Academics and MOD Trading Funds/SME | £ 270 |
| <input type="checkbox"/> AOC Delegates | £ 680 |
| <input type="checkbox"/> All other delegates | £ 780 |
| <input type="checkbox"/> All OF5 Officers and equivalent | £ 60 |

Payment

Four methods of payment (please tick):

- | | |
|---------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Cheque | Made payable in Sterling to Cranfield University |
| <input type="checkbox"/> Invoice | We may need your Purchase Order number |
| <input type="checkbox"/> Credit/Debit Card | Please call Symposia at Shrivenham on +44 (0) 1793 785529 with your card details. |
| <input type="checkbox"/> Pay Online | at www.symposiaatshrivenham.com click on the event page then 'Online Payment'. |

Accommodation

Preferential hotel rates have been negotiated for this event at the hotels listed below. Please book your accommodation directly with the hotel quoting Reference DACU.

Blunsdon House Hotel	Tel: +44 (0)1793 721701	£89 per night bed & breakfast
Jurys Inn, Swindon	Tel: +44 (0)1793 445600	£60 per night room only £75 per night bed & breakfast

Further information is available at www.symposiaatshrivenham.com

- | |
|--------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> I would like to attend the dinner on 4 December |
| <input type="checkbox"/> Please specify any dietary requirements: _____ |
| <input type="checkbox"/> I am entitled (UK) to and require Mess accommodation, if available, for the night of 4 December |
| Service number: _____ |

Security

Please arrange for your Security Branch to complete the boxes below concerning your clearance

Security cleared up to the following level	DVA Reference Number and expiry date	Security Branch signature and stamp
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