

## **35 ISMOR OUTLINE PROGRAMME**

[This is a provisional programme subject to change]

### **TUESDAY 17<sup>TH</sup> JULY**

Registration

Welcome by Judith Rawle and Mike Larnar, ISMOR Chairs

Keynote address by Professor Hugh Durrant-Whyte, Chief Scientific Advisor; UK Ministry of Defence

*Refreshments*

#### **Making every penny count**

Proactive estimating – an analysis of air superiority. D Shermon, QinetiQ, UK

Measuring the value of future research. D Bangert, Polaris Consulting, UK

Supportability audit. A Goody, TFD Europe Ltd, UK

*Lunch*

Keynote address by Rob Solly, Defence & Security Analysis Division Head; Dstl, UK Ministry of Defence

#### **Wargaming**

Wargaming, a minute to learn a lifetime to master.  
K Hallgren, Swedish Defence Research Agency, Sweden

“The enemy also moves”: Game design as an adjunct to study design.  
A Morley, MBDA, UK

*Refreshments*

#### **Modelling for military operations**

Addressing NATO’s modelling and analysis needs through multi-national collaboration. T Baldwin, NATO Allied Command Transformation, USA

Modelling and Simulation as a Service (MSaaS) – an ecosystem to support force preparation and decisions. B Patel and J Lloyd, Dstl, UK

Simulation of future operating concepts to support whole-of-force analysis.  
A Gill, Australian Defence Science and Technology Group, Australia

Modelling discussion panel

#### **Evening session**

*BBQ Dinner*

Evening Talk: The Choson Conundrum. C Hawkins, USPACOM, USA

## **WEDNESDAY 18TH JULY**

[There will be parallel sessions consisting of papers, workshops and tutorials; and a poster session]

Registration

Welcome and arrangements

### **PRESENTATION SESSION**

#### **Modelling for military operations**

Analysis & experimentation to support the structure and layout of headquarters. A Wilder, Roke Manor Research, UK

Capturing the impact of critical decision criteria in major acquisition decisions. J Moore, QinetiQ, UK

OPaL – Ground-based air defence systems simulation at the Swedish Defence Research Agency (FOI). T Beran, Swedish Defence Research Agency, Sweden

#### *Refreshments*

Military simulation analytics: towards a sensitivity analysis when conducting analysis of alternatives. A Gill, Australian Defence Science and Technology Group, Australia

#### **Data analytics**

Data analytics: the same old next big thing for military OR? Y Gauthier, DRDC, Canada

ISTAR Tracker: analysis of detection data to infer distinct entities and their tracks. S Lucek, Newman and Spurr Consultancy, UK

#### **Lunch and Poster Session**

##### **General papers**

A balanced, modern and ready deployed OR capability. R Hoyes, Dstl, UK

Active Protection Systems – challenges and opportunities. O Bodenheimer, Israel

Standards to believe in. N Rose, Polaris Consulting, UK

#### *Refreshments*

Predicting the number of KIA soldiers in an anti-insurgency ground maneuver – experience from Operation Protective Edge. L Prechner-Davidovitch, Israel

Resilience of complex networks – protection of critical infrastructures with control towers. S Pickl, University of the Federal Armed Forces Munich, Germany

Presenting intelligence engineering: operating beyond the conventional. A Svendsen, Bridgehead Institute (Research & Consulting), UK

## WORKSHOPS AND TUTORIALS

<p><b>WARGAMING</b></p> <p>Learning about systems through the Beer Game (Part 1). D Exelby, Decision Analysis Services, and A Morley, MBDA, UK</p>	<p><b>DATA ANALYTICS</b></p> <p>Gaining the battle-winning edge with data science. L Martingale and J Manuel, Dstl, UK</p>	<p><b>MAKING EVERY PENNY COUNT</b></p> <p>Cost forecasting explained; defensible decisions made. D Shermon, QinetiQ, UK</p>	<p>The Choson Conundrum: War Beginning and War End: Analytical Challenges for the Korean War Planner and Operator (Part 1). C Hawkins, USPACOM, USA</p>
<p><b>WARGAMING</b></p> <p>Learning about systems through the Beer Game (Part 2). D Exelby, Decision Analysis Services, and A Morley, MBDA, UK</p>	<p><b>WARGAMING</b></p> <p>Tactical Land Wargame – individual platform vs small unit aggregation – methods and techniques. J Smith, Cranfield University, UK</p>	<p><b>MODELLING FOR MILITARY OPERATIONS</b></p> <p>Equipment? How to test everything else! A Wilder, Roke Manor Research, UK</p>	<p>The Choson Conundrum: War Beginning and War End: Analytical Challenges for the Korean War Planner and Operator (Part 2). C Hawkins, USPACOM, USA</p>
<p><b>WARGAMING</b></p> <p>Redefining friend and foe in a world of abundance (Part 1). C Eastman, S Dean and E Visco, Lockheed Martin Corporation, USA</p>	<p><b>WARGAMING</b></p> <p>Wargaming training and procedural guidance. J Smith, Cranfield University, UK</p>	<p><b>MAKING EVERY PENNY COUNT</b></p> <p>Cost forecasting explained; defensible decisions made. D Shermon, QinetiQ, UK [re-run of morning session]</p>	
<p><b>WARGAMING</b></p> <p>Redefining friend and foe in a world of abundance (Part 2). C Eastman, S Dean and E Visco, Lockheed Martin Corporation, USA</p>	<p><b>DATA ANALYTICS</b></p> <p>Gaining the battle-winning edge with data science. L Martingale and J Manuel, Dstl, UK [re-run of morning session]</p>		<p>Analyst's Exchange. C Smith, MBDA, UK</p>

## **POSTER SESSION**

A range of posters - titles to be confirmed

### **Evening session**

*Dinner*

Talks/Group work preparing for the debate.

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## **THURSDAY 19TH JULY**

Registration

The Big Debate

Review and analysis of Army of None: Autonomous weapons and the future of war. E Visco, Lockheed Martin Corporation, USA

MORS Symposium report. E Visco, Lockheed Martin Corporation, USA

*Refreshments*

### **Making every penny count**

Value for money in defence acquisition. P Goodwin, UK Ministry of Defence, UK

Modelling defence enterprise value. J Steele, DRDC, Canada

Making every penny count discussion panel

*Lunch*

### **Modelling for military operations**

Assessing the benefits of augmented reality in army training. P Tart, QinetiQ, UK

A simulation-based, holistic approach to analyze the impact of drivers and fleet modification strategies on operational performance. T Collipi, Northrop Grumman, USA

[Title not yet decided.] N Hanley, Dstl, UK

*Refreshments*

### **Wargaming**

The future RCAF: modelling and simulation in wargames. B Gladman, Royal Canadian Air Force Aerospace Warfare Centre, Canada

Eagle Warrior 17 – Wargaming for the RAF. N Corrigan, BAE Systems Corda, UK

Wargaming the Atlantic War: Captain Gilbert Roberts and the Wrens of the Western Approaches Tactical Unit. P Strong, Dstl, UK

Wargaming discussion panel

### **Evening session**

Drinks Reception

Symposium Dinner including the Professor Ronnie Shephard Memorial Address by Simon Jewell, Managing Director of Niteworks

## **FRIDAY 20TH JULY**

### **Wargaming**

It's full of stars! A UK wargaming odyssey. M Larner, Dstl, UK

Wargaming to investigate the utility of unmanned systems in a range of underwater tasking. M Moore, BAE Systems Submarines, UK

Wargaming naval operations – “All models are wrong, some models are useful”. P Adam, Cassandra Defence Consulting Ltd, UK

### *Refreshments*

### **Making every penny count**

Understanding the direct value of capability enablers. A Hodges, Arke Ltd, UK

Using S&T and analysis to cut costs, not capability. C Porrett, Dstl, UK

### **Closing session**

35 ISMOR: themes and trends  
Dr Tony Sinden, Decision Analysis Services, UK

Award for best presentation  
Closing remarks

### *Lunch*

### **Symposium ends after lunch**

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