

## Wireless Heritage SIG

*'100 years of radio'*

6<sup>th</sup> February 2014

Kindly sponsored by: **Taylor Vinters\***

*This SIG is championed by Stirling Essex of Espansivo, Steve Haseldine of Deaf Alerter, Andy Sutton of EE, Geoff Varrall of RTT Online and Nigel Wall of Climate Associates.*

Venue: Taylor Vinters, Merlin Place, Milton Road, Cambridge, CB4 0DP

### AGENDA

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**12:30** Registration over networking lunch

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**13:30** Introduction to the Wireless Heritage SIG by **Stirling Essex, Director, Espansivo**

2014 marks the 100<sup>th</sup> anniversary of the outbreak of the First World War. In some respects radio communication has changed beyond all recognition in other respects things are very much the same - a First World War Morse code transceiver is to all intents and purposes a digital radio.

In this inaugural meeting of the Heritage SIG we draw on 100 years of military and commercial radio systems experience to provide insight into the changes taking place in our industry today.

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**13:40** Welcome from sponsor **Rhys Williams Partner, Taylor Vinters**

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Session chaired by **Stirling Essex, Director, Espansivo**

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**13:50** *'1914 to 1934: The wireless wave'*

**Colin Smithers, Chairman, Plextek Group**

The Wireless Telegraphy Handbook of 1913 speculated on the future use of Continuous Waves and sets a benchmark against which fundamental trends in the industry can be measured and predicted including data costs and technology and transmission standard life spans.

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**14:15** Q&A

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**14:20** *'1934 to 1945: The wireless war'*

**Geoff Varrall, Director, RTT Online**

In his controversial book *The Origins of the Second World War* the revisionist historian AJP Taylor argues that the Second World War was not caused by Hitler but was the result of a combination of factors including the rapid growth of broadcasting technology.

So was this the wireless war?

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**14:45** Q&A

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**14:50** *'1945 to 1974: The cold war – radio goes underground'*

**Steve Haseldine, Chairman, Deaf Alerter**

The National Communication Radio System, spy and clandestine radio, preparing for the Third World War

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**15:15** Q&A

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**15:20** Refreshment Break

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Session Chaired by **Geoff Varrall, Director, RTT Online**

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**15:50** *'1974 to 1994'*

**Professor Nigel Linge, Professor of Telecommunications, University of Salford**

The transistor comes of age, the role of radio in consumer electronics and cellular radio

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**16:15** Q&A

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**16:20** '1994 to 2014'

**Andy Sutton, Principal Network Architect, EE**

Broadband radio, digital radio, smart phones, smart networks

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**16:45** Q&A

**16:50** Panel Session with all speakers. Chaired by **Geoff Varrall, Director, RTT Online.**

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**17:25** Fill in evaluation forms / Event closes

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**17:30** Drinks hosted by Taylor Vinters to celebrate the inaugural meeting of the 'Wireless Heritage SIG' and to launch of 'Colour Shift' – an innovative lighting installation by Cambridge-based artist, Susie Olczak. Susie is Artist in Residence at Taylor Vinters and this latest installation is part of the [e-Luminate Cambridge Festival](#) which connects ambitious art with ingenious technology to shed light on low carbon innovation. [Details here.](#)

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*With the permission of the speakers, presentations will be loaded to the Cambridge Wireless website on the day following the event*

## Profile of Organiser

### Cambridge Wireless (CW)

CW is the leading international community for companies involved in the research, development and application of wireless & mobile, internet, semiconductor and software technologies. With 400 members from major network operators and device manufacturers to innovative start-ups and universities, CW stimulates debate and collaboration, harnesses and shares knowledge, and helps to build connections between academia and industry. CW's 18 Special Interest Groups (SIGs) provide its members with a dynamic forum where they can network with their peers, track the latest technology trends and business developments and position their organisations in key market sectors. CW also organises the annual Future of Wireless International Conference and Discovering Start-ups competition along with other high-quality industry networking events and dinners. With headquarters at the heart of Cambridge, UK, CW partners with other international industry clusters and organisations to extend its reach and remain at the forefront of global developments and business opportunities. For more information, please visit [www.cambridgewireless.co.uk](http://www.cambridgewireless.co.uk)

## Profile of Sponsor

### Taylor Vinters

Taylor Vinters is a successful next generation law firm with a commitment to being one of the elite law firms operating internationally in the areas of technology, investment and private client. Headquartered in Cambridge and operating from offices in London, Singapore and Cambridge, our team of entrepreneurially minded people serve an international client base of private individuals, fast-growth companies, multinationals, investors and non-profits. For more information please visit [www.taylorvinters.com](http://www.taylorvinters.com)

## Profiles of SIG Champions

### Stirling Essex, Espansivo

Stirling Essex has over 25 years of product development, product management, strategic marketing and business development experience in many areas of wireless technology, and has been intimately involved in the development of test systems for GSM, CDMA (IS-95), 3G (W-CDMA) and LTE. He founded Espansivo, a technology consultancy specialising in helping organisations with their technology, product and business decisions, in 2005. Stirling was previously a co-champion of the Cambridge Wireless Future Wide Area Wireless Special Interest Group and has been a member of the Cambridge Wireless Board since 2004. For more information please visit: [www.espansivo.com](http://www.espansivo.com)

### Steve Haseldine, Deaf Alerter

Steve Haseldine FIMC FRSA is the Chairman of three companies, Deaf Alerter plc, Electronic Communications Ltd and Evets Communications Ltd. Businesses that design and manufacture in-building, radio-based, emergency communication systems; software defined radio solutions and operate PMR, FM Broadcast and Cellular transmission sites.

His connection with radio started over 50 years ago as a schoolboy, when he became a licensed radio amateur, an interest which has influenced much of his professional career. Sponsored as a Computer Science student focussed on software development with Rolls Royce, he subsequently worked for GEC Telecommunications before becoming a Management Consultant with Price Waterhouse. Starting his own software house and radio

communication businesses in 1979 he has found it rewarding that his two passions of software and radio have evolved into an almost common technology. He has seen his own companies being judged the Midlands Best Small Business of 2013 and the leading Company for Innovation in both 2012 and 2013.

As well as remaining an active radio amateur, Steve has now amassed one of the largest personal collections of communication radio equipment in the UK, with over 3000 receivers, transmitters and ancillary equipment, the vast majority of which are fully operational. The collection spans from the early spark transmitters to the latest Software Defined Radios. For more information please visit: [www.deaf-alerter.com](http://www.deaf-alerter.com)

#### **Andy Sutton, EE and University of Salford**

Professor Andy Sutton is EE's Principal Network Architect with responsibilities for RAN architecture evolution and mobile backhaul strategy and architecture. He has over 25 years of experience within the telecommunications industry, mainly in radio access, transmission and transport network strategy, architecture and design. Andy worked for Mercury Communications Ltd on fixed network transmission, switching and synchronisation before joining the cellular industry in 1993. During the last 20 years Andy has worked for Orange, France Telecom Group, H3G and EE. Andy is a Visiting Professor with the department of Computing, Science and Engineering at the University of Salford. He is a Chartered Engineer, Fellow of the Institution of Engineering and Technology, Fellow of the British Computer Society, Member of the Institute of Telecommunications Professionals and Member of the Telecommunications Heritage Group. Andy has a deep interest in all aspects of telecommunications history and heritage with a particular focus on cellular systems. For more information please visit: [www.ee.com](http://www.ee.com)

#### **Geoff Varrall, RTT Online**

Geoff Varrall is a founder Director of RTT Programmes, a company specializing in providing technology and engineering consultancy to the wireless industry. A co-author of four books on telecommunications, Geoff has recently completed a series of studies for the GSM Association on the RF Cost economics of handsets and is widely respected for his ability to combine a broad understanding of industry technical issues with economic and business analysis. RTT has been running training workshops and strategic seminars and conferences in Europe for over 20 years. Part of his involvement with Cambridge Wireless is to help facilitate the development of new member services including workshops and conferences that can provide the basis for information exchange and business development opportunities for Cambridge Wireless members. He is presently working on developing a Wireless Heritage Special Interest Group. The role of the Wireless Heritage Group is to provide a forum in which the very substantial historic role of Cambridge in the wireless industry over the past 70 years can be promoted internationally. For more information please visit: [www.rttonline.com](http://www.rttonline.com) and [www.makingtelecomswork.com](http://www.makingtelecomswork.com)

#### **Nigel Wall, Climate Associates**

Nigel Wall has been an independent consultant since 2001, with a focus on Intelligent Transport Systems – "connected cars". Prior to this he held a number of key roles within BT, including leading mobile data research. He provides advice to a variety public and private sector clients, and has been involved directly in several collaborative R&D projects, worked on communications standards, is the Chair of the ITS UK Communications SIG and acts as a Technology Translator for the ICT Knowledge Transfer Network. For more information please visit: [www.climate-associates.com](http://www.climate-associates.com)

### Profiles of Speakers

#### **Professor Nigel Linge, BSc PhD FHEA MIP FBCS CIP FCIET CEng, Professor of Telecommunications, School of Computing, Science and Engineering, University of Salford.**

Nigel Linge is Professor of Telecommunications at the University of Salford. He specialises in computer networks and their applications and has research interests that cover location and context based services, communication protocols, the delivery of multimedia applications and the use of networks for sensing. Additionally, he has an active portfolio of work promoting telecommunications heritage that comprises publications, presentations and the organisation of public exhibitions. In 2013, Nigel will be presenting the Christmas Regional Events for the Institute of Telecommunications Professionals in which he will be celebrating the forty year history of the mobile phone. Nigel is a Chartered Engineer, Fellow of the Institution of Engineering and Technology, Fellow of the British Computer Society, Member of the Institute of Telecommunication Professionals and Member of the Telecommunications Heritage Group. For more information please visit: [www.engagingwithcommunications.com](http://www.engagingwithcommunications.com)

#### **Steve Haseldine, Deaf Alerter**

See profile above. For more information please visit: [www.deaf-alerter.com](http://www.deaf-alerter.com)

#### **Colin Smithers, Plextek**

Colin is the chairman of Plextek Group and one of the three co-founders. He has been instrumental in growing the business from its inception in 1989 to its present status with over 100 full time employees and a history of highly successful development programmes. He has 30 years industry experience of radio and electronics projects and still takes an active role in guiding the development of custom product and system solutions.

Prior to founding Plextek he spent four years with PA Consulting Group and before this he worked for Philips, where he completed his PhD in Linear Power Amplifiers, filing a patent in the process. He graduated from University of Surrey where he also designed and built flight modules for their early microsattellites. Colin is a Chartered Engineer, a Fellow of the Institution of Engineering and Technology and a Fellow of the Institute of Directors. He also serves on the boards of Amino Technologies plc and Pneumacare Ltd. For more information please visit [www.plextek.com](http://www.plextek.com)

**Andy Sutton, EE and University of Salford**

See profile above. For more information please visit: [www.ee.com](http://www.ee.com)