



# **e-DEFENCE ELECTRONICS NEWSLETTER**

The e-NEWSLETTER OF THE DEFENCE ELECTRONICS HISTORY SOCIETY  
No 47: June 2016

## **DEHS GOES ON TOUR!**

We have a new venue for our Autumn Symposium, STEAM, the Great Western Railway Museum at Swindon, as DEHS moves forward into a new and more nationwide chapter. Our venue at Shrivenham has offered us superb lecture and display facilities at zero cost, and we are especially grateful to 'Symposia at Shrivenham' managed by Michael Hewetson and to our prime contact there, Betsy-Jane Lawton. In common with current MoD practice, the Defence Academy is now moving towards full cost recovery for its assets, which would be far beyond our resources. Your Committee have explored a variety of alternatives, including getting together with Shrivenham's alumni organisation the Defence Technology Club (DTC), and continues to pursue these avenues. To ensure that we have certainty for our Symposium this year and in the future, we have resolved on the positive step of holding the Autumn Symposium, at a new venue, and of investigating venues around the country. This should allow the maximum possible attendance by members who have so far been unable to travel to Shrivenham, where we have had comments both that it is not the most accessible location, with an expensive taxi fare or infrequent bus service from Swindon station and that access controls to the Defence Academy site are restrictive for those wishing simply to turn up. There has, of course, been little to do or to see at Shrivenham, a military site, for partners/ family members accompanying DEHS members, and while Serco's catering has been fine, choice is inevitably restricted with some members preferring the College Farm pub. STEAM, by contrast, is close to Swindon Railway station; for partners/ family members, it is in itself an alternative attraction to our Symposium, and also offers a wide variety of places to eat, and close by, a retail park with considerable 'retail therapy' opportunities. Our header picture features a steam locomotive of considerable interest, 'Tornado', the most recently-built steam locomotive in the UK, showing that there are lessons to be learned from older technologies, and thus nicely symbolising DEHS, STEAM, and going on tour!

**My prime plea this month is for you to get out those cheque books and renew your subscriptions!** Yes, I know subs are not due until 1 August, but if your memory is like mine, then don't put the attached renewal form behind the clock on the mantelpiece and forget it! [*Do people still have clocks on mantelpieces? Anyway ...*]. Our hard-working Treasurer, Dick Green, has spent a great deal of time redesigning the form so that it should answer all the concerns raised last year – please read his article, and **RENEW!**

Last month, those attending our featured events, the **Old Crows History Evening** and the **IET Lecture Day at the South Yorkshire Air Museum, Doncaster**, had a great time; this month, we want to encourage you to book **NOW** for the **10 August Conference on Interwar Telecommunications**, when our President **Keith Thrower** has assembled a galaxy of speakers to tell us of the latest research in the field; read the list and get those fingers on keyboards or on the phone to Keith! Likewise, do not forget the three Saturdays, **November 12<sup>th</sup>, 19<sup>th</sup>, and December 3<sup>rd</sup>** for the second **Secret Communications** events in **Arthur Bauer's** amazing museum at **Duivendrecht, Amsterdam**. Details for all events in **Ops Board**.

On to this month's content! As promised last month, **eDEN 46** includes the promised continuing stories both of the **building of ASWE** and of **WAAF radar mechanic Amy Bridson**. We examine the

complexities of the **Rainbow Codes**, put together the different systems on which **Lucero** was used, and **S/Ldr Mike Dean MBE** tells us of his latest – and very unexpected – discovery of the proposed use of **OBOE for missile tracking**. Further graphics of the **Ravenscar radar station** are presented by **Brian Mulvana**, and **John Kaesehagen** records a further discovery in his searches to identify his equipment used in **guided missile telemetry**. We then look at **Marconi's interwar infra-red communications kit**, and begin a series on **Japanese military electronics in WW2**. We have requests for help, too – from **John**, to find a copy of the **Hawker Siddeley Review for June 1955**; and from **myself**, for the manufacturer(s) of **AI 17**, and for manufacturer of, and the story behind, the **R 1619 5000MHz ELINT search receiver**. This month **Tailpiece** features the persistence of superseded recording media – in this case, even with such a subject as nuclear weapons! Read the story and light a candle, or offer up a prayer...

As always, suggestions for improvements, offers of articles and all general comments to me at [info@dehs.org.uk](mailto:info@dehs.org.uk).

Dr. Phil Judkins, DEHS Chairman.

## INDEX

Editorial	1
Index	3
Membership Renewal <i>Dick Green</i>	3
May 2016 to 2017 Ops Board: Interwar Telecommunications 10 <sup>th</sup> August; Secret Communications 2, Duivendrecht, Amsterdam, November 12 <sup>th</sup> , 19 <sup>th</sup> , December 3 <sup>rd</sup>	4
Please Help – Hawker Siddeley Review; AI 17; R 1619	6
The Building of ASWE - Part 2 <i>Norman Vidler</i>	8
WAAF Radar Mechanics <i>Amy Bridson</i>	14
Rainbow Codes <i>Chris Gibson</i>	19
LUCERO	23
OBOE and the Radar Gun Barrel <i>S/Ldr Mike Dean MBE</i>	24
Ravenscar Illustrated <i>Brian Mulvana</i>	26
Guided Missile Telemetry Systems <i>John Kaesehagen</i>	30
Marconi Interwar Infra-red Communication System <i>Marconi Review</i>	34
Japanese World War 2 Electronics <i>BIOS Report</i>	37
Magwatch: <i>Radio Bygones</i> on AN/ARC-3 and Geoff Arnold obituary; <i>Flypast</i> Cold War issue	50
DEHS Publications	51
Tailpiece: Floppy Disk and Nuclear Weapons	52