



## ***e-DEFENCE ELECTRONICS NEWSLETTER***

The e-NEWSLETTER OF THE DEFENCE ELECTRONICS HISTORY SOCIETY  
No 37: August 2015

### **HOW WILL MILITARY ELECTRONICS BE REMEMBERED?**

With this issue 37, *eDEN* celebrates entering its fourth year with a bumper issue of two Parts, both devoted to examining the question of how will the military electronics over which we in DEHS agonise be remembered in the long term. The thought was stimulated in your editor's mind by three events – the publication of the design for the window at **Bentley Priory** to remember Sir Henry Tizard (above); a piece of editing advice which your editor and **S/Ldr Mike Dean MBE** did for a recent article on Battle of Britain radar; and my chat with a TV company planning yet another documentary on that same subject, all of which called to mind the recent survey which showed that a large proportion of the rising generation were unaware of either what the Battle of Britain was, or why or when it was fought. In DEHS we offer our positive answers to how our subject will be remembered – our funding of research, with the appointment of **Kapil Subramanian** to the post-doctoral Fellowship at Leeds; and our awards for restoration, in 2015 to the meticulous work of **Richard Hankins and Tony Waller of the Electronics Restoration Trust**. In that same spirit, we feature a Danish neutral look at the **1917 Zimmermann Telegram**; our member **Rod Burman** reviews the story of the **acorn valve**; a wide-ranging contemporary article covers the employment of **magslips, selsyns and servos** in radar, searchlights, gunnery, and predictors in World War 2; **John Kaesehagen** asks from Australia for help in identifying some of the telemetry items in his collection, in an article which will be first of several needed to do justice to its range (anyone work on the **Jindivik target drone**?); **J C 'Jacey' Wise** brings us up to date on **Passive Radar**, while my reminder on **Ray Essen's** excellent '**The Birth of Atomic Time**' stimulated me in turn to remind members of the **200BC Antikythera mechanism**, a Grecian geared analogue computer (so how will **the Mk XIV bombsight** be interpreted in 4200 AD?) followed by our own **Publications List**, and **Ops Board**, with a talk by our own **Dr Liz Bruton** and the current **Oxford exhibition on the physicist Henry Moseley** and associated events. In **Tailpiece**, I compare the little we know of a pictured WAAF of 70 years ago compared with a baker's wife of almost 2000 years earlier.

This theme is then continued in an unusual departure for us – a Part II! Kindly compiled for DEHS by the **Council for British Archaeology – Yorkshire**, to whose **Spencer Carter, Christiane Kroebele, Shaun Richardson and Ed Dennison** we are extremely grateful, this shows how **today's archaeologists** record and interpret **radar sites, searchlight sites, anti-aircraft defences**, and the other elements of air defences in the UK. Members will note the analytical processes and the references used, no doubt with varying feelings – but reflect, please, that this is how our subject will now come to be remembered long-term. As always, suggestions for improvements, offers of articles and all general comments to me at [philjudkins@btinternet.com](mailto:philjudkins@btinternet.com)

Phil Judkins, DEHS Chairman.

## INDEX

<b>Editorial</b>	<b>1</b>
<b>Index</b>	<b>2</b>
<b>University of Leeds: Kapil Subramanian appointed Postdoctoral Fellow</b>	<b>3</b>
<b>Electronics Restoration Trust win DEHS Restoration Award 2015</b>	<b>4</b>
<b>QinetiQ Open Day 4 July 2015 <i>Tony Waller</i></b>	<b>6</b>
<b>Searching for Zimmermann <i>Andreas Marklund</i></b>	<b>9</b>
<b>Acorn Valves <i>Rod Burman</i></b>	<b>13</b>
<b>Magslips, Selsyns and Servos <i>Brigadier E J H Douch OBE</i></b>	<b>19</b>
<b>Woomera, Missile Control and Telemetry - II <i>John Kaesehagen</i></b>	<b>32</b>
<b>Passive Radar <i>J C 'Jacey' Wise</i></b>	<b>39</b>
<b>The Birth of Atomic Time <i>Ray Essen</i></b>	<b>40</b>
<b>DEHS Publications</b>	<b>41</b>
<b>Ops Board; Current Oxford Exhibition "Dear Henry.."</b>	<b>42</b>
<b>Tailpiece: the wife of Terentius Nero, and an unknown WAAF</b>	<b>44</b>