



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

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## **FORENSICS: DIGGING DEEPER**

History, as all DEHS members know, is rarely if ever to be taken at face value, and many members of DEHS are heavily involved in re-assessments of evidence to discover what actually happened. These re-assessments have recently attracted the name of 'forensic' assessments – a name which is merited only when the re-assessment is a thorough and deep one, using every analytical tool possible. This is time-consuming and exacting, certainly mentally – **Arthur Bauer's** re-assessment of Abwehr agents has involved over 110,000 pages of material, **Tony Waller's** reconstruction of the earliest AI and ASV is a marathon and not a sprint - and often emotionally, for there is no certainty that the evidence will take us to comfortable conclusions. Your Editor was not expecting to find an British official admission on the treatment of a Wehrmacht cypher officer that "we may have breached the Geneva convention", but, sadly and uncomfortably, it was so. In this issue of **eDEN**, specially extended to 3 parts, **Paul Marks** in **Part III** remaps in detail **the HF/DF plots** relating to one particular convoy, which we believe is the first time this has been carried out – read for yourself his conclusions, and ponder the problems of escort commanders in the Atlantic battles of 1942/3.

In Part I, **eDEN #96** as usual, spans Army, Navy, Air Force and clandestine applications of military electronics of all vintages, and we begin with **Feedback** on last month's eDEN from **George Caple, Clive Kidd, Andy Young, Philip Sandall, Ralph Erskine, Hugh Griffiths, Phil Racher** and **Michael Ellis**. As Editor I am delighted, for I am keen to encourage this dialogue, so please keep your e-mails coming when you spot something on which you have useful further information. Next, two

articles in tribute to **Walter Blanchard** by the man himself, reflecting first, Walter's love for 'Operating Historic Military Radios', and second, his life in navigation, about 'Robert Dippy, Father of GEE'. We next look at two more of the unpublished papers of the first CHiDE Conference, the first by **Dr A.G.D. Rose** on 'The Development of Radar in Its Historical Context', and the second by **Professor Peter J. Hugill** comparing 'Radar Development in Britain, Germany & America, 1934-45'.

DEHS's restorer supreme, **Tony Waller**, then puts forward his ideas in the next of his series of articles 'To Restore or Not to Restore, THAT is the Question!', supported by numerous photos of his own restorations-in-progress. To give background to Tony's drive to rebuild early AI and ASV radar, we reprint, from 2006 'Transmission Lines', **Ian White's** story of British 'Air Intercept Radar', and then move on to shine a light on a little-known anti-aircraft radar story, **Yasuzo Nakagawa's** account of 'The Japanese Würzburgs'. 'Experimental Bistatic Radar Trials' in 1961 by RSRE and Plessey are then described by Messrs **Pell, Crossfield, Knowles and Sheppard**, after which we move on to consider magnetrons – first, the rather neglected 'Low Power Resonant Segment Magnetrons', described at the 1946 Radiolocation Conference by **J.C. Dix and E.C.S. Megaw** (who had by then left GEC); and then two contributions, from members sadly no longer with us, to the debate on early magnetron development, first by **Rod Burman**, who collected and researched the topic for many years, and secondly by **Donald Tomlin**, who was actually present at many of the 1940 meetings on the topic – note the involvement of **BTH**, so often written out of the story. **Tailpiece** rounds off with a look at the 'End of Pevensey Chain Home', with its buildings and some kit sold by auction in 1958; 360 ft steel transmitter towers for £100, anyone?

In **Part II 'Fighting the Ship'** we look the changing nature of threats to warships and how to fight them, with many thanks to **Mike Dean** and **Clive Kidd** for research and material. First, the WW2 use of guided missiles – a Royal Navy view in 'Switch on Jammers!', and a US Navy view in 'How Radio-Controlled Bombs were Jammed'; **Mike Dean** takes us through the losses of **LST 282** and **LST 79** to the **Hs 293**, assessed with other missiles in 'German Guided Missiles – a Royal Navy View' before we consider **R.V. Alred's** 1946 paper on 'Naval Radar Anti-Jamming Technique'. Threats to a warship are of course undersea also, as our next papers illustrate – a 1945 **USN** view in 'The Combat Intelligence Center in Anti-Submarine Warfare', and a 1963 **Decca** assessment in **F Barker's** 'Sonar: An Introduction'. We then move to consider developments in fighting a ship over time in two papers - **Barry Pettigan's** '50 Years of Challenge and Development' and **John Peters' 'Devices and Desires'**, rounding off by showing the **USN's** adoption in WW2 of infra-red in 'Nancy: U.S. Navy WW2 Infra-Red Communication & Identification'. **Part II** also closes with a **Tailpiece**, in this case **Michael Ellis's** encounter with the **USN's** redoubtable **Grace Hopper**.

**Part III** is totally dedicated to **Paul Marks 'A Known Winner But ...'** : WW2 Shipborne HF/DF & ONS ' – as stated above, a detailed study of the type which is, alas, infrequent today. It is a well-worthwhile read, and you may think differently about the evidential support for claims made for naval sensor technology after reading it and seeing the evidence presented. As with interpreting radar traces, so much depended on the operator – and so much on the warship's Captain. We conclude in lighter vein – what do you do with a redundant, but indestructible, submarine pen after the battle? Possibly only our French colleagues would be inspired to use it as a gallery for artistic light installations! See **Tailpiece 3**, then Google **Bassin des Lumieres**, Bordeaux, and marvel!

I record once more this month my thanks to **Mike Dean** for LST research and for much other support. As always, suggestions for improvements, offers of articles and all general comments to me please at [philjudkins@btinternet.com](mailto:philjudkins@btinternet.com) or [info@dehs.org.uk](mailto:info@dehs.org.uk).

Warmest regards all, and keep safe,

Phil

Dr Phil Judkins, DEHS Chairman.

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