



e-DEFENCE ELECTRONICS NEWSLETTER

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THE UNEXPECTED

One of the many positive aspects of editing eDEN is the receipt of information from members which is new, important - and completely unexpected! Such was the arrival of an e-mail from **Yves Blanchard** with a paper illustrating his rare good fortune in being able to examine the personal collection of original magnetrons of none other than **Henri Gutton**, together with his notes and photos! Gutton, of course, contributed massively to the development of the cavity magnetron before and early in the Second World War, just one specific being the design of the cathode, increasing the embryonic magnetron's power substantially. But Gutton remained in France in 1940 after the German occupation and relatively little has been known about his work in that dark period. But the collection of original magnetrons described and illustrated for us by Yves casts light on Gutton's work in this time, and Yves not only shares with us his research, here published for the first time, abut also asks us to contribute our thoughts, insights and ideas! This exceptional event is illustrated above – now turn to Yves' excellent article and contribute!

Stepping back from this breath-taking paper, Part I of this *eDEN*, #98, spans as usual Army, Navy, Air Force and clandestine applications of military electronics of all vintages, and begins with Feedback, where **George Bichard** looks at the RAF's acquisition of the **Martin Baltimore** and of its remarkable wireless fit; **Arthur Bauer** and **Tatjana van Vark** contribute answers to Ian Brown's requests for identifications last month; **John Kaesehagen** points out that Heritage Australia must have been listening when, helped by **John Sarkissian**, we wrote about 'The Dish', the **Parkes Radio Telescope**, and **Robert Soek** provides us with a feast of detailed photos of the **Decca Doppler nav aids**. The **CV 15/ VT 90** saga originating with **Andy Young** has added information from **Simon Watts**, **Clive Kidd** and **John Kaesehagen**, and then **Ian Brown**, Curator of the National Museum of Flight, takes us through some of the prize contents of the **Museum at East Fortune**.

After Yves' article, we look at facts unearthed in preparation for the **Sheffield Kelham Island** exhibition on **magnetron magnets**, most generously supported by the **Newcomen Society**; work by **Mike Diprose** and **David Eaton** has shown that this industry was founded as early as the eighteenth century by **Hannah Shaw**. Another 'Forgotten Person', **William Helmore**, is highlighted by **Phil Racher**, with more to come next month on Helmore's remarkable inventions, and **Mike Blom** points us to a rare survival of US 10cm expertise whose development is described in **Henry Guerlac's** comprehensive work. Two important items on the **GEE navaid** follow - **Tony Waller** continues his popular series 'To Restore or Not Restore: That is the Question' with his first part of a detailed look at Early GEE, and we reprint a **Cossor Ltd** document on **New GEE Navigational Equipment** with further contributions from **Ray Essen** and **George Thompson**.

Two more overlooked people are then brought into sharp focus – **Denys Felkin**, master interrogator, is described by **David King** and **Mark Lubienski** (watch out for their *Transmission Lines* paper later this month on cryptographer **Brigadier Tiltman**), and **Brian Austin** brings to our attention the important part played by the women of the **South African Special Signals Service**, about whom we hope to be able to bring you more next month. Two lesser-known early documents follow – from the Radiolocation Convention of 1946, **Cooke, Fertel and Harris'** work on **Electronic Switches for Single-Aerial Working**, and then **US Countermeasures: the contribution of OSRD, Division 15** is described by its director, **C.G. Suits**. We close – since statues are much in the news – with a perhaps 'unexpected' statue, that of **Sheffield's** doughty 'Women of Steel'.

In Part II, the indefatigable **Mike Dean** presents for us the last issue of '**Mare Nostrum**' summarising the work of the combined Allied Air **Forces in the Mediterranean Air War** – marvel at the variety of nations and aircraft involved, and consider the complexity of planning operations at short notice which involved so many variables! **Tailpiece 2** rounds off this month's issue with a brief mention of another unexpected – not all **submarine missile launches** are successful!

As so often, my grateful thanks once again this month to **Mike Dean** for his tour de force in Part II's article, and for much other support.

Suggestions for improvements, offers of articles and all general comments to me please at philjudkins@btinternet.com or info@dehs.org.uk.

Warmest regards all, and keep safe,

Phil

Phil Judkins, DEHS Chairman.

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