



e-DEFENCE ELECTRONICS NEWSLETTER

The e-NEWSLETTER OF THE DEFENCE ELECTRONICS HISTORY SOCIETY
No 18: January 2014

HAPPY NEW YEAR!

**DEHS PUBLISHES PROFESSOR RUSSELL BURNS' *CHERWELL* BOOK
PROFESSOR HUGH GRIFFITHS TO BE 2014 BURNS LECTURER
ROYAL NAVY'S FINAL TYPE 45 DESTROYER ENTERS SERVICE EARLY**

To open with a picture both of a dawn and of military electronic warfare, and some welcome good news, *HMS Duncan*, the UK's sixth Type 45 Destroyer, has entered into service with the Royal Navy four months ahead of schedule. *Duncan*, affiliated to the cities of Dundee and Belfast, was originally scheduled to enter service in early 2014, but thanks to both her ship's company and industry since her arrival in Portsmouth, she is ready to take up duties and will now embark on trials to prepare her and her crew for operational deployment. *HMS Duncan* is the final Type 45 to enter service with the Royal Navy, and her handover to the Fleet marks the end of a 13 year build programme with BAE Systems to deliver the six *Daring-class ships* – *Daring, Dauntless, Diamond, Dragon, Defender and Duncan*. Armed with the *Sea Viper* missile defence system which can counter threats up to 70 miles away, the 7,500 ton Type 45s are the most powerful air defence destroyers ever used by the Royal Navy. All six are based at Her Majesty's Naval Base Portsmouth, which will also be the home to the Royal Navy's *Queen Elizabeth* Class Carriers.

There is good news closer to home! DEHS announces the publication of Professor Russell Burns' last book, "*The Prof, Churchill and Science at War*", Russell's study of *Frederick Lindemann, Lord Cherwell*; see below for details, get your pens out and **ORDER NOW!** Linking to Russell and his stature as an internationally-renowned historian, the summit of our triad of good news is that we can announce that *Professor Hugh Griffiths*, whose international reputation in the field of bistatic radar was recognised by the *IET's A F Harvey award*, and whose reputation as an international electronics historian is being embellished by a series of excellent papers on early radar, **is to be DEHS' 2014 Burns Lecturer**; again, further information is given in a short article below.

Alas, there is also sad news to convey. On December 15th, *Don Tomlin*, one of our longest-standing and most highly respected members, passed away in his 96th year; his funeral will be in Worcester on 6th January, and details are contained in my short appreciation of Don's considerable contribution to DEHS, not only in his home field of Army radar, but – as exemplified in his courageous attendance at our 2013 Spring Lecture – in his active participation in debate both verbally and in letters and articles in *Transmission Lines*.

This month, we open our articles with yet more variants of the **GEE** navigational system, both British and (projected) German. A successful joint attack by our colleagues in the Newcomen Society and ourselves upon a mystery ‘radar’ is described in **The Hunt for ROTET**. Less successfully, BAe’s **Typhoon** was ruled out of the UAE’s search for a supersonic fighter, the likely winner being none other than - yes, **Dassault Aviation**, the unintendedly-topical subject of our 2013 Burns Lecture, and I offer a short musing on this. Now that we are actually in 2014, our ‘**Get Ready for 2014**’ series is retitled, and this month deals with one of the many ways in which we amplified before the advent of valves, in reproducing the original instructions for **Brown’s Relays** (Brown as in S.G., of course, in this case). Further details are given of the rich variety of papers to be delivered at the **Oxford Conference ‘Innovating in Combat’, Telecommunications in WW1, on 23/4 January**; these include such renowned experts as **our own President, Keith Thrower**, on Army Radio Communication, and **Professor Tony Davies** on his special subject of wavemeters, together with the latest research from Germany, Denmark, the military museums, our good friend **Professor Graeme Gooday of Leeds University**, and of course **our own Dr Liz Bruton**. This promises to be a superb conference - **BOOK NOW!** A further pictorial report is given on DEHS’ visit to the Arthur Bauer/ Cryptomuseum ‘**Secret Communications**’ event, and ideas for talks to go to hear early in the New Year are contained in **Ops Board**, which also carries details of the forthcoming **IET/BCS Turing Lecture. Tailpiece**, with thanks to **Jacey Wise**, pictures the ‘ground handling’ of our feathered photo-reconnaissance friend portrayed in December’s **eDEN!**

As ever, suggestions for improvements, offers of articles and all general comments to me at philjudkins@btinternet.com or chairman@dehs.org.uk

Dr. Phil Judkins, DEHS Chairman.

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JUST PUBLISHED BY DEHS!

'THE PROF, CHURCHILL AND SCIENCE AT WAR'

PROFESSOR RUSSELL BURNS

The Defence Electronics History Society, and students of scientific and military history, owe a great debt to our president, Keith Thrower, for undertaking the mountain of work necessary to bring to publication the last manuscript of the distinguished scientific historian Professor Russell Burns, who chose as the subject of his last book the complex and fascinating personality of Frederick Lindemann, and his close relationship with Britain's war leader, Winston Churchill.

There are few figures in the world of science as divisive as Frederick Lindemann, Lord Cherwell. Of German birth, but a British patriot, his courage at Farnborough during the First World War of testing his theories by putting aircraft into a spin is unchallenged. During the 1920s, he revitalised the Clarendon laboratories after a half-century of decline. Gaining the friendship and the ear of Winston Churchill in the 1930s, during the Second World War he wielded influence at the highest levels like no