

BRUCE NEALE

Bruce Neale's association with radar started in 1940 when, aged 19, he joined the RAF and was sent to the Orkneys. There, without training, he helped to install, calibrate and operate Britain's most northerly Chain Home station.

Within a few months, he was posted to the Middle East, and for the next three years served on radar stations in Aden, Egypt and, finally, on the site of the Pharos Lighthouse at Alexandria — one of the Seven Wonders of the Ancient World.

'In Aden', recalls Bruce, 'we were under constant surveillance by the Italians. The day the RDF went operational, without test or trial, an agitated native bearer reported an enemy aircraft overhead.'

'The RDF had seen nothing! A *Gladiator* was scrambled, vectored on a course indicated by the bearer, and made a perfect interception.'

'The Savoia Marchetti 79 was shot down, and the success attributed to the new, magic RDF. But honesty prevailed. The station log recorded, "18.30 hours native bearer Ali Mohammed reports hostile aircraft overhead!'

'We found the SM 79 floating in the Gulf. It was made of wood and stuffed with Italian Generals. They were highly indignant that we'd shot them down, as they were only on reconnaissance!'

'There may not have been any bombs on board, but there was a crate of Chianti in danger of sinking. We rescued it and, together with the Generals, passed a happy evening toasting Winston Churchill, Benito Mussolini and King George VI — war seemed a long way away.'

Back in the UK in 1943, Bruce spent the remaining war years on new radar developments, including measures to deal with V1 flying bombs, and OBOE, the blind precision bombing system that contributed so much to the successful demolition of the Krupps Armament Works and the V1 and V2 launch sites, and to the triumph of the D-day landings.

Demobbed in 1946, Warrant Officer Neale joined forces with an ex-Aden colleague and band leader Geraldo to set up a professional sound recording studio in New Bond Street.

As Chief Engineer, Bruce designed all the high quality, hand-made equipment, which was used by HMV, Decca, NBC, BBC, Radio Luxembourg and many other organisations.

He worked alongside such artists at Bing Crosby, the Goons, Mantovani (whose 'singing strings' owed much to the recording equipment), Orson Welles and Nat King Cole, to name but a few.

'Once, when I was working with Tommy Beecham, a phone call came through for him. "Sir Malcolm Sargeant would like a word with you, Sir Thomas," I said. Sargeant had only recently been knighted. "Sir Malcolm Sargeant?" replied Tommy B, "I thought he'd only been doctored!'

After developing a high fidelity magnetic tape recorder, which was taken up by EMI and developed as the BTR/1, Bruce succumbed in 1952 to the siren radar and joined Marconi which has acquired a multi-million pound contract to design, manufacture and install stations around the UK coast — code-named ROTOR.

There followed over 30 years of deep involvement with all the major radar developments.

'We had our moments of internecine warfare. I remember the proving test flights of the Bawdsey prototype Type 7, when the first detection range performance fell short of spec.'

'Doc Eastwood, who'd been responsible for the antenna and feeder systems, proceeded to dissect the transmitter, for which Ellis-Robinson had been responsible, hoping to prove that it was either on the wrong frequency or the output measurements were over-optimistic.'

'Meanwhile, E-R was crawling all over the antenna array, making crude measurements by 'spark gap', hoping to prove that the power wasn't reaching the radiating elements. It was a sight that had to be seen to be believed.'

"In fact, neither transmitter nor antenna was seriously at fault. We simply hadn't appreciated the critical dependence of the "effective target echoing area" on the flying "attitude" of the aircraft!'

Colleagues have said of Bruce that he is an outstanding design engineer, that all the Marconi radars that have been giving super service for decades bear his stamp, that he goes direct to the root of the problem, that he makes things happen, and that he has a king-size sense of humour.

These qualities are still on tap for Marconi Radar, because although he retired earlier this year, Bruce comes to Writtle Road twice a week in a consultative capacity.