

DX-TV - VINTAGE STYLE

by Andy Emmerson

Not unnaturally, we think of long-distance (DX) TV reception as a modern phenomenon, but a recent article by Keith Hamer and Garry Smith in *Short Wave Magazine* (February 1989, page 11) corrected my first impression. In this article the authors stated "405 line receivers were shipped from the UK to North America in the hope of receiving transmissions from the transmitter at Alexandra Palace. The experiment proved a success and at times both sound and vision signals were monitored at 41.25 and 45 MHz respectively.

"The signals were studied at Riverhead (Long Island) in New York between 1936 and 1939. The receiving antenna used consisted of a horizontal rhombic some 45 feet above the ground, directed towards London. The length of each leg of the antenna was 400 ft. The major and minor axes were adjusted to give maximum response to a signal arriving at an angle of 6 degrees. The effective height of the antenna system was about 63 feet. Most of the observations took place between 0945 and 1130 EST. This corresponded with the afternoon schedules of the BBC. On numerous occasions the transmissions continued until noon or thereafter.

"The images observed appeared to exhibit selective fading as the contrast of the picture would often change between wide extremes. Multi-path propagation would mar the picture in two ways. Firstly it would cause repetition of the picture content and secondly, it would result in more than one set of horizontal synchronisation pulses, making it impossible to obtain a steady picture."

In the meantime I have had the opportunity to do a little more digging and some further details may be of interest ...

A photo of a lorry-load of Cossor receivers on their way to New York appears on page 467 of *Television and Short-Wave World*, August 1938 and these are probably the ones referred to above.

The first DX reception was probably that of Mr C.G.J. Angilley in Cape Town, who was receiving the 7-metre signals 'very consistently, using very simple equipment' (*TV & S-W W*, July 1937, page 407). The September 1937 issue of the same magazine (page 527) has a detailed article on RCA's reception of the BBC signals at Riverhead, with pictures of the receiving equipment and a diagram of the aerial. Slightly closer to home, the Cunard-White Star liner *Britannic* achieved a first when it received the television signals while passing through the English Channel, 30 miles from the south coast (December 1937, page 723). And in August 1938 (page 482) we find the first mention of British reception of the TV signals transmitted from the Eiffel Tower.

Wireless World (April 1944, page 98) carried a detailed evaluation of the American reception, while their November 1950 issue (page 407) had a review of propagation conditions leading to regular reception at the South African Broadcasting Corporation near Johannesburg. South African reception was also discussed in 'Reception at Extreme Ranges' (*Practical Television*, page 184, July 1950).

On the other side of the world, the BBC transmissions (now from Crystal Palace) were received in Australia (Practical Television, page 405 April 1957 and page 520 June 1958 - the latter article illustrated the DXer's antenna setup.) Moving Stateside, the first British reception there since 1937 was recorded in Practical Television (page 282, January 1958). First reception was on 1st November 1957, and the pictures included the David Nixon show 'It's Magic' (very appropriate really!). They were picked up at the Baldwin, Long Island receiving station of Press Wireless, Inc. - a distance of more than 3000 miles. Over seven days signals were received on six occasions. Further reception in the USA was mentioned in the RSGB Bulletin (page 367 February 1958), when Hartland Smith WBVVD of Birmingham, Michigan reported receiving BBC channel 1 between December 8 1957 and January 5, 1958. He used a converter (6AG5 r.f. and 12AT7 mixer) and a modified American TV receiver, together with a two element beam antenna about 18 feet above ground (in the attic). Programmes received included the Brains Trust, Andy Pandy and a Ronald Colman film.

Finally, we Brits are used to receiving Soviet TV via sporadic E. Well, again in the February 1958 RSGB Bulletin we read of a Russian amateur, UB5FG in Odessa, who 'during the last two months ... has been receiving the 41.5 Mc/s [sound] signals from Crystal Palace very strongly'. All of which goes to show that (i) DX-TV is nothing new, (ii) this reception was aided by the relatively low frequencies used and (iii) with today's low-noise receivers we'd have far more DX reception reported, if only such low frequency transmissions were still being put out!