

Afterword - Anomalous Propagation

The phrase ‘anomalous propagation’ is a technical term referring to a variety of unusual radio phenomena. There are a number of poorly-understood physical mechanisms which permit transmission beyond the expected range. Intermittent ducting allowing waves to circumnavigate the globe, reflections from the Moon – the so-called moon-bounce mode – and strange tropospheric scattering: all are infrequently-observed effects with what are still more-or-less mysterious causes.

It is the exploration of these effects, which generally have little or no practical or commercial use, which some Radio Amateurs find fascinating. Even so, historically, discoveries of this type by an earlier generation of amateurs has led to important uses, such as the identification and careful study of the Heaviside Layer¹ – one of several bands of ionised gas that lies well above the breathable part of the atmosphere – allowed long-range practical and military exploitation of short-wave radio.

Radio direction finding also has a commercial and military history – everything from tracking down spies during the Second World War to the detection of unlicensed television receivers. Almost inevitably it was turned into a game, a sport, by enthusiastic amateurs years ago. Originally, this sport was limited to the short wave bands, but more recently VHF and even UHF operations have become popular.

I do not really suppose that any of this anomalous propagation is really caused by Unidentified Flying Objects – but it was fun to speculate on the possibility.

¹ The Heaviside Layer is mentioned in Andrew Lloyd Webber's musical *Cats*, which is itself based on *Old Possum's Book of Practical Cats* by T. S. Eliot.