



Propagation Studies Committee Report

October 2016

Overall PSC Objectives:

To inform members about predictions of propagation conditions by producing:

- The HF, VHF and up propagation report for GB2RS (G0KYA, G4BAO, G3YLA)
- Monthly HF Propagation charts for the UK and ad-hoc charts for DXpeditions (G0KYA/G4FKH)
- HF Propagation Predictions for RadCom (G4FKH)
- A daily (summer) updated forecast chart of jet stream and severe thunderstorms for Es research for the RSGB "Propagation Questions" Forum (G3YLA)

To maintain / improve understanding of propagation by:

- Writing the propagation pages for the annual RSGB Yearbook (G0KYA)
- Writing propagation features for RadCom as requested (all)
- Giving propagation-related talks to RSGB Convention and local clubs where possible (all)
- Recording changes in background noise levels through the HF Noise Measurement Campaign (G4FKH)
- Coordinate HF beacons with IARU (G3USF)

Other ongoing work includes:

- Research into nanowaves (light propagation) (G8AGN)
- Low frequency propagation (LF) (G3NYK)
- Microwave propagation (G4DDK, G4BAO)
- Six metre propagation (G4IFX/G3YLA)

Update:

PSC has had another busy six months, culminating in a number of lectures being delivered at the RSGB Convention and the launch of a new "VHF and up" propagation video presentation for clubs.

The 19-minute video is backed up by a team of volunteers who can provide a Skype-based Q&A after it is shown.

PSC would like to remind clubs that it still has its "Understanding HF Propagation" presentation movie available too, which has now been used by more than 90.



RSGB has also launched a new “Radio Propagation Explained” book. The book is based on Ian Poole's excellent 2004 “Radio Propagation Principles and Practice”, but brought up to date by Steve G0KYA with around 30% new content on LF, Sporadic E, HF propagation programs, web resources and much more. As such, RSGB decided that for marketing purposes a new title/design was appropriate.

Work is also continuing on the www.predtest.uk online HF propagation system, based on the ITURHFPROP software. This is now a private, rather than an RSGB-sponsored project, and being run by Gwyn G4FKH.

In terms of Spectrum-related matters, PSC remains concerned about QRM to beacon frequencies, especially the NCDXF International Beacon Project on 14.100MHz, which is often monitored automatically using the FAROS software. Another concern is private, unlicensed beacons that pop up on bands below 20m.

The IARU recommendation is that there be no permanent beacons below 14MHz, unless previously agreed and for serious long-term propagation studies. This allowed for the 5MHz beacons in the UK. IARU R1 policy is that beacon operation on 7 and 10MHz is ‘discouraged’. See <http://www.iaru-r1.org/index.php/beacons/beacons>

The original NVIS-based phase of the 5MHz beacon experiment is complete, and no follow-up long-term research proposal has been put forward.

At RAL two (5MHz and 70MHz) are switched off due to local interference issues. More broadly across the UK, access to and sustainment of suitable sites for beacons is an ongoing challenge.

While this isn't an immediate problem, with Beacon NoV renewals due in 2017, RSGB is open to the possibility of an alternative site(s) and would welcome suggestions and support site move NoV applications.

PSC still struggles to find new members – and the existing ones get older! A request in RadCom for a new member for a specific 2m research project on behalf of John G4SWX resulted in a nil response. The vacancy remains advertised on the RSGB website.

Steve Nichols, G0KYA
PSC Chairman
October 2016