

RADIO SOCIETY

of Great Britain

Propagation Studies Committee (PSC)

The purpose of the Propagation Studies Committee (PSC) is to promote interest in radio propagation amongst amateurs and shortwave listeners, to enable them to make informed use of the amateur bands and develop a research interest into the subject.

Its activities include (but are not limited to):

- Improving our understanding of radio propagation through promoting and coordinating research
- Liaising with academics and other experts on propagation matters
- Acting as consultants and advisors to RSGB members over propagation issues
- Writing propagation-related material, including HF predictions, for RSGB
- Giving educational talks and presentations to interested parties.

Report for Spectrum Forum meeting

The Propagation Studies Committee continues to be involved in propagation research, from LF through to visible light.

Current projects include:

- HF noise measurements – a long-term project to see if noise levels are getting worse in the UK (G4FKH)
- Investigation into ducting at VHF for RadCom (G0IJZ)
- Regular LF propagation analysis (G3NYK)
- Production of monthly HF Propagation charts for the UK, ad-hoc charts for DXpeditions and talks (G0KYA)
- The 2m transatlantic beacon in Ireland and 70cm UK beacons (G4BAO)
- The use of visible light for communication – nanowaves (G8AGN)
- A study into Sporadic E propagation on 6m during the 2014 season (G0KYA)

Other RSGB commitments include:

- The production of HF Propagation Predictions for RadCom (G4FKH)
- The rewrite of the propagation pages for the new RSGB handbook (G4FKH and G3HTF)
- The propagation pages for the annual RSGB yearbook (G0KYA)
- The solar and HF report for GB2RS (currently G0CAS and G3USF)

In terms of spectrum-related issues:

2m Transatlantic beacons

The 2m trans-Atlantic beacon GB3WGI on 144.487 MHz in Northern Ireland is now up to 1kW ERP. There have been no reports of reception from the other side of the Atlantic. The beacon currently runs CW and JT65B. Best DX has been Portugal (CT) off the side of the beam.

There have been discussions about the possibility of changing the mode during different seasons. FSK441 might be a better mode for the beacon, as evidenced by

John Regnault G4SWX's recent success with the 2m trans-Atlantic Brendan Trophy attempt.

The 2m TA beacon GB3SSS at Poldhu ARC was also active during the trans-Atlantic attempt, but while it is still switched on, the Poldhu group are pondering what to do next.

There seems little interest at Poldhu to continue with GB3SSS due to a) the GB3SSS hardware being quite old b) pressure from the National Trust to reduce the visual impact of antennas and cost of operating the centre and c) the problem of having a 2m TX operating 24 hours a day with the attendant de-sensing.

It is early days but talks are in progress to see if a 2m SDR receiver could be located in Cornwall to monitor CW, JT65 and FSK441 signals from across the Atlantic instead.

Update on the new 70cm beacons:

Kent – awaiting site clearance (co sited with GB3VHF)

Leicester – waiting for beacon keeper to finish the TX

Finningley – are using their own TX

Angus – are recrystallising their existing beacon for now

Northern Ireland - some technical issues, but should be up and running shortly

Cornwall – there are manpower issues and no progress at present.

About half of the above are using G4JNT hardware.

Changes to GB2RS propagation news

Martin G3USF and Neil G0CAS are due to step down from preparing the weekly solar and HF report for GB2RS. They are to be thanked as they have been writing the report for around 20 years.

The report, which will now be edited by G0KYA and G4BAO in the first instance, is to be changed to focus more closely on propagation, including HF, VHF and above.

The changeover should take place next month.

Steve Nichols G0KYA
PSC Chairman