



Minutes of the Propagation Studies Committee

Meeting by video conference

21 October 2023

Attendees:

Steve Nichols	G0KYA	Chairman
Dr John Worsnop	G4BAO	Vice Chairman
Chris Deacon	G4IFX	Secretary
Alan Melia	G3NYK	Member
Ron Smith	G3SVW	Member
Dr Peter Duffett-Smith	GM3XJE	Member
Jim Bacon	G3YLA	Associate Member
Sam Jewell	G4DDK	Associate Member
Bill Liles	NQ6Z	Associate Member

1. Apologies for absence

Apologies had been received from Barry Chambers G8AGN (Member), and George Jacob G0HSV, Gwyn Griffiths G3ZIL and Marcus Walden G0IJZ (Associate Members).

2. Matters arising from the minutes of the meeting held on 29 April 2023

These minutes had previously been approved via email and posted on the RSGB website. Matters arising therefrom are dealt with under the relevant agenda items below.

3. PSC membership and roles

It was confirmed that all current full members are happy to continue in their current roles.

After a discussion, it was agreed to end the distinction between Corresponding members and Associate members of PSC and use the term 'Associate Members' for both. A consolidated list will be produced.

Action: G4IFX

It was agreed to invite Nick Shaxted, G4OGI to become an associate member of PSC, on the basis of his ongoing research into tropospheric propagation.

Action: G0KYA



4. Topics for discussion

4.1. RSGB website – PSC pages

PSC webmaster Alan, G3NYK is going through all the article links on the PSC pages to make sure they still work.

Action: G3NYK

Alan also requested suggestions for new article links to add to the website, because some of the existing material is getting quite old now.

Action: All

4.2. 28/50 MHz beacon lists

The PSC 50 MHz beacon list has now been retired, as agreed at the last meeting, in favour of the list on <https://www.beaconspot.uk>.

The 28 MHz list is still in the process of being made available on beaconspot. John Worsnop agreed to encourage the public release of the 28 MHz beacon list on beaconspot as soon as possible.

Action: G4BAO

It was noted that ZL2IFB maintains a list of 28 MHz beacons heard from the other side of the world, and this provides a useful check on the list.

4.3. Les Barclay Award

After discussion, a nomination was agreed for the 2024 Les Barclay Award. It will be put forward to the Board in due course by the Chairman.

Action: G0KYA

4.4. PSC ‘Science Workshops’

The third workshop session was held by video conference on 7 October, with 9 PSC members taking part and with three topics, led in turn by G4IFX, G3ZIL and K9LA. The next workshop will be held shortly before the Spring 2024 PSC meeting.

Action: G4IFX

5. Projects and potential projects

5.1. Mid-Cornwall Beacon Project

GB3MCB is now on the air and has been spotted on 40, 50, 70, 144, 432 and 1296 MHz. Funding for power provision to the whole cluster of beacons and repeaters was provided by RSGB Legacy Committee and the beacons are now being fed via solar power - see the story in November’s RadCom.



For some reason, GB3MCB on 28.215 has not been reported on the Reverse Beacon Network for some time, with the last reported spot being on 16/9/23 by KK4WJF. The beacon keeper has confirmed that it is still operating.

5.2. BAA Meteor Scatter Beacon

The beacon is on the air and has been running reliably for the best part of a year. The associated receiver project is getting up to speed but is proving to be complex, with rapidly evolving requirements particularly around alternative display formats. Experimental receiver livestreams are viewable via the project website <https://ukmeteorbeacon.org/> along with other information about the project.

It was also noted that the UK Radio Astronomy Association has components for sale, including WiMO Moxon antennas (<https://www.ukraa.com>)

5.3. Other potential projects

The analysis for looking at aircraft scatter during the pandemic (requested by the previous RSGB President) has already been done by Nick, G4OGI. It will be suggested that that he produce a short article for RadCom.

Action: G4BAO talk to G4OGI.

John, G4BAO reviewed progress on his 24GHz web receiver project, which has the objective of putting a web SDR to on the east coast of England, to monitor a number of beacons in ON and PA across the channel. John has now identified a site near Walton-on-the-Naze, on a site with a tower and with the offer of installing an antenna on the tower. Potential installation is next Spring; site approval is awaited.

Action: G4BAO

It was agreed in principle to adopt the 24GHz web receiver initiative as a PSC project, and to support an application for financial support to the RSGB Legacy Fund.

Action: G4BAO/G0KYA

6. Chairman's report - Steve, G0KYA

(items not already covered elsewhere in these minutes).

6.1. GB2RS

Steve met with Steve Richards, G4HPE, GB2RS Manager, at the RSGB Convention to discuss the propagation report. He has agreed to include one or two sentences each week to try and explain some of the terms used. This week it was MUF, but in future we may include SFI, ZHR, CME and others as appropriate.

6.2. RSGB Convention

As there was no Newark Hamfest this year we were asked if could put on a small exhibit at the RSGB Convention in Milton Keynes. Steve chose not to give a talk this year but concentrated on getting the stand together.

This he did, and he met quite a few interested people at the event. Gwyn, G3ZIL also used a large-screen monitor to demonstrate how he uses FST4W for propagation studies. He was also interviewed live on RSGB TV showing how the North American annular eclipse was affecting HF propagation over the west coast.

Live talks were given by PSC members Peter Duffett-Smith (long-delayed echoes) and Jim G3YLA (update on Es propagation). John G4BAO also participated in a talk entitled "Moving forward on 23cm".

6.3. RadCom

The first of the occasional series of propagation-related articles has now been published and Steve is looking for further ideas.

7. Other activity by PSC members

7.1. Sam, G4DDK

Sam reported that Ofcom are monitoring amateur beacons to support the development of a propagation modelling exercise. They will be establishing some new beacons at Biggleswade for 24, 47 and 76 GHz. Radio amateurs are going to donate GB3MHZ/24 to them for this project.

Sam also reported that G4OGI has conducted a study using his satellite system at 10 GHz to look at rainscatter with an elevated dish (26 degrees).

7.2. Bill, NQ6Z

Bill reported that U.S. Naval Research Laboratory (NRL) has released python version of IRI 2020. He also noted that the proposed secondary allocation to the Earth exploration-satellite service (active) for spaceborne radar sounders has been updated and is likely to be approved at WRC-23.

7.3. Jim, G3YLA

Jim has talked to four clubs this year. He is also continuing to investigate data sets to support his Es prediction modelling; he noted that amateur observations are really useful but don't provide the systematic data that ionosondes do.

7.4. Peter, GM3XJE

Peter gave a talk on his Long Delay Echo project at the RSGB Convention, after which he was delighted to be contacted by someone at the University of Twente with an offer of ideas and support for the development of a suitable receiver. He is looking for other opportunities to get some support.

He is continuing the RadCom Technical Editor role for the time being, but a new technical officer has now been appointed.



7.5. Ron, G3SVW

Ron gave an update on the status of his LDE activity and reported that he had sent some details of LDE references to Alan, G3NYK for the PSC website.

7.6. Chris, G4IFX

Chris reported that he submitted his PhD thesis, "Radio propagation through ionospheric sporadic-E", at the beginning of August. His PhD viva was due to take place on 27 October.

7.7. Gwyn, G3ZIL (by email)

Gwyn had an article published in RadCom in September 2023: "Insights into HF propagation using FST4W" and a German translation of his paper "FST4 on the HF Bands: Why - What to expect - Equipment – Results" was published in FunkAmateur in the same month.

Gwyn also gave a talk with Nigel Squibb (G4HZX) at the SDR Academy, Friedrichshafen: "Propagation path analysis on the HF bands using Software Defined Radio and FST4W", which was awarded the Ulrich Rohde prize (one of two awarded).

He has also had several other articles/papers/posters recently accepted for publication.

8. Any other business

None.

9. Date of next meeting

Provisionally Saturday 27 April 2023.

**Chris Deacon G4IFX
PSC Secretary**