

RADIO SOCIETY

of Great Britain_

DRAFT/UNCONFIRMED

PROPAGATION STUDIES COMMITTEE

Minutes of a meeting of the Propagation Studies Committee held in Leicester on 17 October 2009, commencing at 1300hrs local.

1. Members Present

Prof. M. Harrison	G3USF	Chairman
Mr S. Nichols	G0KYA	Secretary
Mr A. Melia	G3NYK	
Mr R. Smith	G3SVW	
Mr G. Adams	G3LEQ	
Mr G. Williams	G4FKH	
Mr L. Butterfields	G0CIB	

Apologies for absence were received from Prof. B. Chambers G8AGN and Dr M Walden G0IJZ.

2. Minutes of last meeting

These were approved without change, other than the misspelling of G3NYK's name who had become an "Alana".!

3. Matters Arising from the minutes

3.1 Automated beacon monitoring

This topic was revisited again. Please see the minutes of the last meeting for a discussion on Faros. Steve G0KYA said that he thought the best way forward was to use Spectrumlab and use its ability to log the highest signal received over a period of a number of seconds as programmed by the user.

3.2 RSGB Yearbook

There was a discussion around the propagation content in the RSGB yearbook. The general solar information doesn't change from year to year and Steve G0KYA has written the last two HF forecasts. There was a suggestion that future yearbooks could contain further details of PSC projects etc. As RadCom has carried an HF/LF propagation column for the past year there was some discussion as to whether the yearbook was the best vehicle for such material. We really need to know what RSGB thinks/wants.

3.3. Sheffield beacon

No developments have been reported.

3.4 Microwave beacon week-long Autumn activity session

No official reports have been received, although Alan G3NYK said that he thought that the tests had been quite successful.

Note: After the meeting Barry G8AGN confirmed that the Sheffield beacon (possible replacement for GB3MLE), has been put on hold due to the success of the "temporary" 10GHz beacon G0GHK/B which is situated at the Finningley club premises near to Robin Hood airport.

3.5 Technical Forum

Leslie G0CIB commented that the RSGBtech reflector now has 260 people who have posted 600 messages. Of these, there have been no comments relating to propagation.

See <http://groups.yahoo.com/group/rsgbtech/>

4. PSC Membership

Thomas Giella NZ4O has requested that he be re-added as an associate member. This was agreed. (Note from Steve G0KYA – Thomas was added to the PSC reflector on Monday 19 October).

5. Topics for discussion

5.1 HF propagation Predictions In RadCom

There was a lengthy discussion about the HF propagation predictions in RadCom, prepared by Gwyn G4FKH. Gordon G3LEQ suggested that he would prefer to see graphical predictions, perhaps based on popular paths. It was pointed out that there would only be space for about six and we are unlikely to be able to negotiate more space in RadCom.

The current numerical method allows for details of 30+ paths to be shown each month.

Gwyn also pointed out that the online predictions do have a graphical element if you click on the path itself - see <http://www.rsgb.org/propagation/>

It was felt that more could be done to promote the use of the online predictions as they are quite hard to find on the RSGB site and are only mentioned in the small print in RadCom.

G7RAU had also commented that the predictions were based on Chelmsford –Gwyn's QTH. But in fact, they are based on central England. A number of Dxpeditions have also now been added.

Gwyn also pointed out that users will shortly be able to download an Excel spreadsheet of his predictions based on two-hour timeslots. These can then be manipulated using Excel.

There was also a discussion on whether more sophisticated predictions could be produced, based on the two-hour time slots, but it was felt that the programming work would be too onerous.

Action: Gwyn to contact RadCom/GB2RS to promote the online prediction set.

5.2 Newark Hamfest and Wyboston RSGB Convention

Steve G0KYA and Leslie G0CIB attended the two-day Newark Hamfest and Steve prepared the display material. Photographs of the stand have been sent out via the reflector and the committee were congratulated by the RSGB on the quality of the exhibit.

As well as running computer demonstrations of Solar activity, HF prediction programs and presentations about the Internal Beacon Project, the two also answered lots of questions about propagation issues and handed out details of HF propagation programs.

It was felt that the event was a great success, but hard work and a view will be taken next year on how we will attend again, given the time commitment.

Leslie and Steve also gave presentations at the RSGB Convention – Leslie on the International Beacon project and Steve on WSPR and also HF propagation planning as part of the Icom Contest University.

These were well received and Steve's WSPR presentation can be found at www.g0kya.blogspot.com

Leslie said that as far as the RSGB were concerned it was good that PSC were seen to be at the two events and available for questions.

A request for a speaker for the Leicester show had to be declined as no-one was available. G3LEQ suggested that PSC might like to exhibit at the GMDX meeting or Norbreck in Blackpool. In view of the distances involved Steve G0KYA wasn't keen and there were no other volunteers.

5.3 Standard worldwide format for observation

A short discussion was held on the locator database again (see last minutes), but it was felt that there was nothing further to add. There was also a short discussion around auroral/geomagnetic locators.

5.4 PSC webpage

There was a discussion over whether the PSC content currently on the Keele University website should be migrated to the RSGB's website.

We would like to know whether we would have FTP access to the site to update the page or whether we would have to wait for RSGB to update it for us.

The existing page is a list of links and there was also a discussion as to whether the page would be migrated as is, or whether a more sophisticated site is required, although no one really has the time to devote to this.

Martin G3USF said that in principle he was happy for the content to move to RSGB as long as we still had control over it.

Alan G3NYK is also interested in knowing if they want his LF report as well - it is currently hosted on his BT Internet account.

Action: Leslie will talk to Rob King at RSGB about their requirements.

5.5 RSGB Board Matters

Nothing to report other than there is now a dedicated final beacon policy for VHF and UHF.

6. Projects

6.1 Multiband beacon project

Nothing to report. Both GB3RAL on 28MHz and the Multiband beacons are working.

6.2 WSPR

Steve said that his work on WSPR has shown that, while useful, it does have its limitations. His experiments have shown that his 5W 30m signal into a loft-mounted magnetic loop could be received as far afield as Alaska, Australia and New Zealand.

He cautioned that a) there are not many stations on bands such as 80m and 10m, with most of activity occurring on 30m and b) some of the data had to be taken with a pinch of salt due to wrong or corrupt callsigns/locators.

As it logs SNR it is also less useful as you can't tell whether you are recording an increase in signal or a drop in noise.

Nevertheless, it has promise as a quick method of testing antennas and for looking at paths such as Es, but it does need more users. See his RSGB Convention presentation at <http://www.g0kya.blogspot.com/>

Andy Talbot is also now running WSPR on the 500kHz beacon..

6.3 6 and 10 reports

Martin G3USF said that this was still proceeding. He is currently working on the June data due to the volume received in the Es season – some 40,000 hits. July was also equally busy.

It was an interesting summer for 6m with more and better openings than 10m. There was a discussion on whether Summer Solstice Short Path (SSSP) is actually a new mode or not. This season there were actually 6m openings to Taiwan from Europe.

The US also had SSSP openings to JA and openings on 6m from EU to South America (PY8), at the Northern edge of the equatorial zone, but not TEP.

Is it that propagation is “better”, or that stations are now better equipped?

We probably need JA beacons with a relatively ERP and directional antenna to do serious research. An investigation of SSSP would be a great project, similar to the work done on TEP.

The 6 and 10 report can be found at <http://g7kse.co.uk/6and10/>

6.4 LF Propagation

Alan G3NYK stopped his regular LF report in July as there had been a decline in activity over the summer months. It was also getting “samey”.

He will pick it up again this winter.

Alan has written three columns on LF propagation for RadCom, picking up on where Steve G0KYA left off on HF propagation. His third column will look at how you can detect solar flares on LF.

The NoV for 73kHz has now expired in the UK. A transmitter on 72.6kHz at Hill Morton (Rugby) caused a lot of QRM during the experiment. It was subsequently found to be a standby transmitter and could have been switched off.

6.5 GB2RS

Both Martin G3USF and Neil G0CAS are finding it hard to find something new to say each week with the SFI and Smoothed Sunspot numbers remaining the same each time.

Gordon reports that there have been problems with getting everyone to sign up to the electronic delivery of their GB2RS script. As a result many still need to be sent out via post, which impacts on the deadline for the propagation update.

Martin G3USF and Neil G0CAS are still happy to produce two propagation reports each week.

7.1 Chairman's report (as submitted by Martin G3USF)

Regular routine activity included weekly solar/propagation reports, maintaining HF and 50MHz beacon lists and the Radio Propagation web page and working on the Six and Ten Report.

Also, monitoring the spectrum, technical, UK beacons and HF beacons reflectors for material with a PSC interest.

Launched under G0CIB's auspices, the technical reflector has a healthy level of activity and enables the Society to draw constructively on the wealth and depth of knowledge of knowledgeable members - though, as yet, few of the matters raised have been propagation-related. This seems to be a particularly valuable resource for the RadCom team.

The UK beacons list has recorded excellent work on upgrading the beacon network. These new generation beacons at VHF, UHF and 500kHz lend themselves better than their predecessors to propagation projects; what can we do to stimulate people to undertake such studies?

At 50MHz, GB3IOJ, which closed, is to be reincarnated and GB3NGI should soon be on the air. The number of uncoordinated beacons in Europe, both within and outside the authorised sub-bands is a continuing preoccupation. Most are in Italy with QRPP/QRSS. Do they serve any useful purpose? (They certainly irritate some people.) Meanwhile, good relations with Region 2 Coordinator; nothing heard from Region 3 coordinator.

Major preoccupations of the Spectrum committee of particular interest to ourselves are 500kHz, threats to our frequencies, especially in the microwave region, and EMC. The Society, directly and via Region 1 has been constantly active in defence of the hobby, in what appears to be an unending battle – or series of battles – here and internationally.

The level of activity on the PSC reflector has been encouraging. Topics aired since our last meeting include:

- Cycle 24
- Cosmic rays
- Daytime meteor streams and Es
- 10GHz rainscatter
- Marcus' well-received NVIS paper
- Propagation mode for long-range 50MHz contacts
- NW7US podcasts

7.2 Leslie G0CIB - RSGB Board issues

Nothing to report

7.3.1 Steve G0KYA

Steve said that he is continuing to produce a monthly radio programme for the "This Week In Amateur Radio" Podcast in the USA. He produced a total of nine features for RadCom looking at a band a month. These were well received.

The podcast is also now on iTunes and at www.g0kya.blogspot.com

7.3.2 Dave Ackrill G0DJA

Dave has offered to write something on microwave rainscatter. The committee encouraged him to go ahead with the project, possibly as a leaflet that could be used at exhibitions.

The content might then find other uses.

7.3.3 Tomas NW7US

Tomas was commended on his propagation podcasts, which had been well received.

7.3.4 Vaino OH2LX

Vaino has produced a compilation of auroral events from 5/89 to 6/93, showing events per hour. OH2LX's paper also charts geomagnetic and seasonal variations over the period covered.

7.3.5 Marcus G0IJZ

Marcus reports he is currently processing more of the 5 MHz beacon data with the aim of correlating measurements with VOACAP and possibly even REC533 propagation simulations. He is trying to calibrate the receiving setups of some participants, such that

actual power at the receiver/antenna can be obtained. He also hopes to look at the noise measurements and, if possible, draw comparisons with the ITU-R noise models.

8. Any other business

A comment had been made that PSC should provide a “real-time” ionosphere report. It was pointed out that the ionograms, such as Chilton’s and the DX Cluster were doing just that.

7. Closure

The next meeting was provisionally booked for Saturday 8 May 2010 at Leicester.

The meeting closed at 1630hrs.

Steve Nichols G0KYA
PSC Secretary