



RSGB 2015 Spectrum Forum Meeting Minutes

Holiday Inn Garden Court Hotel, Sandy, Saturday 7th November 2015

Present

Murray Niman G6JYB (Spectrum Forum Chairman), Ian Greenshields G4FSU (HF Manager),
Colin Richards G3YCR & Robin-Page Jones G3JWI (EMCC),
Mike Granatt, M0RYK (ECC), Ian Pawson, G0FCT (Contests Committee),

Trevor Hawkins M5AKA (AMSAT-UK), Ian Brothwell G4EAN (BARTG), Graham Shirville G3VZV (BATC)
Mark Marsden G4AXX (CDXC), Bob Bagwell G4HZV (FOC), Dominic Baines M1KTA (G-QRP)
Cathy Clark G1GQJ (RAYNET), John Worsnop G4BAO (PSC & UKuG), Ron Swinburne M0WSN (VMARS)

Also Present

John Gould G3WKL, RSGB President
Steve Hartley G0FUW, RSGB Board Link Member

1 Minute Secretary:

It was agreed that Mike Grannatt M0RYK would take the notes.
Thanks are also due to Ian Brothwell G4EAN for additional notes.

2 Apologies

Apologies for absence were received from:

John Regnault G4SWX, (VHF Manager), Mark Jones G0MGX (AROS Coordinator), John McCullagh G14BWM (ETCC), Steve Nichols G0KYA (PSC), Peter Thomson GM1XEA (ECC delegate M0RYK), David Butler G4ASR (Four Metres), Graham Coomber G0NBI (RSGB General Manager), Trevor Day G3ZYY (UKSMG), Colin Thomas G3PSM (at WRC15!), Peter Chadwick G3RZP

3 Terms of Reference

The terms of reference were noted.

4 Actions arising from the previous minutes (Nov-2014)

All complete

5 Spectrum Reports

All Spectrum and Group reports were taken as read, with key points from their presentation below:-

5.1 HF Manager

Ian G4FSU been particular busy with 5MHz. CEPT had approved a proposal, which WRC19 is currently discussing. Apart from 5 MHz – there has also been plenty of requests/complaints from special interest groups, including contesters vs non -contesters. As per later this is a good time to consider topics/papers for the Region-1 interim meeting that will be held in Vienna in April 2016. With regard to spectrum matters the desired harmonisation of 1.8-2 MHz (top band) is far from a given (and had already run into resistance in CEPT-WGFM).

It was explained how each WRC sets the agenda for the next one and that there had been a successful two-year process in CEPT-PTA to agree their proposals for future agenda items (which had led to 1.8 and 50 MHz being proposed, whilst 3.4GHz had been rejected). Given that the ITU caps the total number of WRC agenda items it has been very fortunate there have been amateur items in recent times. Ian forecast that the final WRC 5MHz decision was likely to be for less spectrum than we already have in the UK.

Harmonisation of band plans across regions is always a goal, and will be part of the Vienna and forward plan.

5.2 VHF/UHF Manager

In John's absence the Chair presented the report. BATC expressed their thanks re 146-147 MHz (and its annual extension) as their work on reduced-bandwidth TV (RB-DATV) has demonstrated innovation and use. As per the report, the recent problems over satellite coordination allocations were highlighted which had been a key topic at the recent Region-2 Conference. The Society had supported an Australian paper on the topic. The IARU-AC has taken the matter in hand. It was commented that traditionally only Region 1 had ever planned VHF matters in detail. Other Regions are now realising that this needs attention and IARU is seeking to ensure better coordination. On another matter it was noted that GB3UHF was awaiting permits from BT.

5.3 Microwave Manager

As acting microwave manager, Murray G6JYB presented his report and commented that the new Ofcom licence completed the process of the spectrum reductions in 2.3 and 3.4 GHz. Indeed it was that change that triggered the Ofcom licence review. However this was unlikely to be the end of the story, as future 5G telecoms (inc WRC-19) was targeting more spectrum and including much higher frequencies as well, such as our 47 GHz primary allocation amongst others.

5.4 AROS Co-ordinator

AROS Co-ordinator Mark Jones G0MGX highlighted that AROS had been busy with repeater cases, and misuse of 5MHz. Some complaints have arisen from a misapprehension of calls from Irish amateurs who have different 5MHz allocation.

5.5 Intruder Watch Co-ordinator

No report / issues raised

6 RSGB Committee Reports

6.1 Electromagnetic Compatibility Committee (EMCC)

Currently a major issue has been interference from some PV Installations. We need to think how we can progress matters with the European Commission. The EC says national regulators have the necessary powers to deal with this issue. Ofcom appear to differ. However, Ofcom have consulted on new regulations (which will still have limitations) but it is not clear when they will come into force. The EMCC are very grateful for all comments submitted to the consultation. Generally we have a major challenge getting Ofcom to take interference seriously, even with good case paperwork. (The loss of the licence fee has no bearing on their response).

LED lighting: Some mains voltage models cause a problem. Whilst one approach is to publicise good and bad products, it was thought there might be legal risks with this.

6.2 Emergency Communications Committee (ECC)

The amalgamation of RSGB and RAEN RAYNET organisations may be completed next year. Cathy Clark highlighted a problem with some 70cms (7.6MHz split) talk-thru RAYNET repeater systems, where operating in reverse duplex would be helpful to mitigate problems. The in/out direction is presently controlled by the 70cm band plan (as are conventional repeaters) and a more neutral specification was requested.

Action: 7.6MHz Talk Thru channel to be reviewed as part of the 2016 Band Plan updates process

6.3 Emerging Technology Coordination Committee (ETCC)

It was commented that ETCC were very busy as everybody seems to want a personal DMR repeater (not helped by networking arguments). The number of available channels was running out as there was also ongoing demand from D-Star and Fusion (and perhaps surplus Tetra in future). The primary user issue had also returned with a vengeance in 4m and 23cm. In contrast applications for 3.4GHz DATV repeater outputs had been successful.

Note: Repeater/Beacon clearance/NoV delays are a regular topic at Ofcom-RSGB forum meetings

6.4 Contest Committee (CC)

Ian GOFCT reported that the Contests Committee reported had been particularly busy. The President's contest review was mentioned. The first white paper had quite a good reception, whilst a supplemental one on VHF was less successful. The committee is working though various rule changes. HF ones are expected to be drafted shortly, whilst VHF is delayed.

HF contest segments are still contentious. For the 80m domestic contest, the middle segment will be available (50 kHz), but interference may have to be accepted. Contest participation seems to be rising, and sometimes markedly so.

6.5 Propagation Studies Committee

The PSC highlighted that their new HF Propagation video had gone down very well. A VHF video was being considered (awaiting a script). The format change to GB2RS had also been well-received. The March-2015 Eclipse project had seen excellent participation, including with schools. The committee needs more HF people who are interested in how their radios work. The PSC is in need of new people with HF expertise and be able to give regular propagation data to the PSC. Volunteers with an average station rather than big beams would be appreciated. Interest groups such as CDXC, FOC, G-QRP might be a route for finding volunteers.

NB: Video, "Understanding HF Propagation" info:

<http://rsgb.org/main/blog/news/gb2rs/headlines/2015/01/30/new-propagation-film-clubs/>

7 Group Reports

7.1 AMSAT-UK

Trevor M5AKA highlighted the push to get amateur radio into schools. The FunCube dongle has been helpful (some free ones go to schools). It's not only science based; there's been an art project covering communications, linked to amateur radio by using packet to send lines of poetry to the ISS digipeater and listening to the digipeated versions.

G3VZV - spoke about involvement with Tim Peake's forthcoming mission (amateur radio and amateur television). A commercial dish at Goonhilly is available to provide a TV downlink via DVB-S. Currently the Principia web site needs an amateur radio icon/link, but that should change as the school contacts get underway.

7.2 BARTG

BARTG highlighted a need for more space for RTTY on 14 MHz. Ian G4FSU asked for details (pointing out it would need an IARU change). G4EAN will ask the BARTG committee (again). G4FSU also pointed out that Region-2 came into line with the Region-1 band plan for 7MHz so another change on that band might not be well received.

7.3 BATC

Graham Shirville G3VZV reported that BATC had an active year, including in the 146-147 MHz segment, though less so on 71MHz. A further 8.25 MHz is in prospect when the Es'HailSat-2 geo-stationary satellite comes into service on 10GHz

7.4 CDXC

Mark Marsden G4AXX introduced his report. Various DXpeditions showed how to operate without spreading. Offensive behaviour (CQWW) is common but not 'on' when it affects younger amateurs. What to do? SDR recordings may be of help.

7.5 FOC

Bob Bagwell G4HZV commented that CW seems to be better behaved than SSB on DXpeditions. Ian G4FSU commented that the biggest clash is actually between CW and datamodes. It was also pointed out an effective way of improving band plan adherence might be to refuse any contest logs that failed to record frequencies.

7.6 G-QRP

Dom Baines M1KTA highlighted issues in the 40m CW segment vs datacoms. Ian G4FSU commented that this misalignment may well be the operators rather than the band plan.

5MHz - G-QRP have crystals for this band and are keen on additional AM space. Ian G4FSU says the UK band plan permits wider modes in the 2700Hz width allocations on a LBT basis. Murray commented that AM and other usage notes are now included in the latest Exam Handouts used for training/exams.

Action: Ian G4FSU to review AM note

Spectrum requests:

- 5MHz? - wait for the WRC update in the afternoon session....
- 40MHz? Unlikely but we might be able to expand the propagation study allocation (GB3RAL 40 MHz beacon)
- Below 9kHz? The ITU regulations now go down to 8.3 kHz whilst the UK WT Act regulates all the way down to DC. 8.3kHz is also used for lightning detection by the Met Office. Murray said the three original NoVs for 9kHz have expired.
- 73kHz? - it will not return.

John G3WKL pointed out that a good case could always be made for an Ofcom SRP

WSPR? Kits to build frequency agile beacons are becoming common. It was noted that WSPR beacons have to be attended and that better guidance on both licensing and usage was needed. WSPR is attractive to low power users, but often misunderstood at higher frequencies as it is not robust against Doppler and multipath.

7.7 RAYNET

See 6.2.

7.8 UK Microwave Group (UKuG)

John Worsnop G4BAO contrasted HF to microwaves where there was no shortage of bandwidth! Small dish EME and highly innovative work at 134 GHz were examples highlighted of creating Wow factors. UKuG now has various loan systems available to encourage newcomers.

It was noted that various 23cm beacon and repeater applications were stuck. Murray commented that 23cm is particularly difficult due to having more than one Primary User. Applications needed to be researched and aim to be right first time - and even then we still get delays.

7.9 UK Six Metre Group (UKSMG)

A project to realign the 50 MHz beacons is getting underway as the UK is behind the IARU changes and we need to pick up speed prior to beacon NoVs expiring in March 2017. The Danish work, using PI4 had been quite impressive. This is an opportunity for elderly beacons to be upgraded.

7.10 Four Metres – 70MHz.org

No specific report – but 4m is covered in the VHF Manager's report. Ian G0FCT said the CC has considered extra 4m contests to promote activity – but the usual challenge is to find a suitable day and time.

7.11 VMARS

Ron M0WSN asked about a possible expansion of 80m (as well as 5MHz). Murray commented that sadly we can't even get existing 160m frequencies harmonised – see the afternoon discussion on why HF expansion prospects are actually getting harder.

Lunch Break

DSL: Robin Page Jones commented on broadband issues - GFast (BT next generation of DSL: ADSL -> VDSL -> GFast). As the speed (and frequency usage) increases, lines radiate more and can be quite leaky. GFast goes up to 108MHz and may go to over 200MHz so notching is important (as at present). Problem is that notching reduces bandwidth. Equipment is often self-installed, which is not optimum either. The 28, 50 and 70MHz bands lie within the range of GFast and 144 MHz will be in it if GFast goes to 200MHz. VDSL raises the noise floor and is similar to white noise.

The amateur bands are usually in the downstream bands (which is a smaller signal). Amateurs should check the advice on the EMC Committee website and report their findings to EMCC.

8 IARU Region-1 Interim Meeting Topics/Drafts

Items 8, 9.1, 9.2 and 9.3 were taken together in a slide presentation by Murray G6JYB.

IARU: The Region-1 timetable for the Vienna Interim meeting requires consultation on our own inputs to be concluded before Xmas prior to finalising drafts for the submission deadline.

C4 – HF Topics include USB usage, and 10MHz harmonisation. The latter had previously proved problematic but the feeling in the Forum was that change was long overdue to accommodate the growth in newer modes.

The HF manager commented we need a paper that suggests how to resolve the digimode problems. John G3WKL suggested that we propose a Region 1 paper to study the band first.

Action on Ian to produce the draft paper on 10 MHz band

C5 VHF/UHF: A key goal was to reform the narrowband 144MHz section to create better flexibility, shift PSK31 and mitigate Ethernet birdies. It was far from obvious that the UK-specific RAYNET SSB frequency was ever used, and other spot frequencies may well be cleared from that area. Other topics included APRS Harmonisation (144.8 is common in Region-1 but not elsewhere) and other Handbook updates (editorial and contest chat room guidance).

On microwave topics, Murray was aware that REF (the French Society) would present a paper associated with 2.3GHz and commercial Licence Shared Access, whilst he was also aware of a renewed UK-Gov push on the rest of the 2.3GHz band.

C7-EMC: This will be the inaugural meeting of the new committee. Colin G3YCR commented that coordinating membership of standards bodies across member societies, and a database of interference signals to help identify QRM were amongst the topics to be raised.

President: Groups represented at the forum should take the trouble to put things forward - it's not just for the Spectrum Managers to make proposals. The size of the Society enables us to field a full delegation that can prove influential. Engaging the spectrum managers when formulating proposals can be very productive.

9 Look-ahead – WRC15/19, 2016+ Spectrum Strategy

9.1 WRC15

WRC-15 had commenced on Monday 2nd November. Major agenda items include more spectrum for mobile broadband, Emergency comms for terrestrial, maritime and aeronautical mobile, a further change to the UHF television allocation (DSO-2) which will come down to 700MHz, satellite tracking of aircraft; unmanned air systems, leap seconds, etc.

5MHz: In the UK we have 71kHz over 11 segments. G3WKL asked if the UK beacons - GB3ORK, GB3RAL, GB3WES – are still needed, as they are becoming harder to maintain? We may ask the keepers/users. We have recorded lots of data and covered a solar cycle. G4FSU would like at least one beacon to continue.

At WRC the aim is for a single band, not discrete spots. A slide showed the current discussion status (which is fluid/ongoing during the conference). USA and Russia are opposed to a 5MHz allocation. Maritime HF radar needs to be protected (our lowest UK segment overlaps the radar allocation). Other issues include the method for specifying a power limit and UK-MoD/Nato concerns.

9.2 WRC-19

Preparation starts immediately after WRC15, with CPM19-1 on 30th November - 1st December. Around 100+ proposals are chasing 18 future agenda slots. We face threats to primary microwave bands (for 5G) and opposition to harmonising 1.8-2.0MHz - which might not be worth the effort, given the 5MHz experience.

In contrast, the 50-54MHz range in Region-1 currently has greater appeal to regulators than anything at HF, who were also looking at 47-68 MHz for mobile / IoT, whereas the ITU allocation still includes Broadcasting.

9.3 Spectrum Strategy Review 2016

See slides which provide initial thoughts

- Key questions: SWOT, protect, develop, compromise for the greater good, how do we promote/inspire, what's the vision?
- Spectrum status: overall amount and primary vs secondary balance.
- Demographics: amateur callsign numbers facing serious decline (SKs & revocations)
- HF Western broadcasters may be going off air, but the military continue to innovate/expand.
- VHF+ - Greater opportunity to innovate (as more bandwidth is available)
- Solar cycle decline can also be considered to be a threat and stress the lower bands

Chair: important that the future strategy ensures greater occupancy and activity levels (esp in VHF+).
Need responses from forum on question: Is this the right background for the 2016 review?

President: we should use this as a stick in the sand at this point. Another key input will be the findings of the Amateur Radio Survey - we should have early data, early next year. We have to be aware of what people feel is the general purpose of amateur radio. It varies from person to person.

Question for this forum: What data does this forum want from the amateur radio survey?

Example - What are the newer licensees doing compared with the older licensees?

10 A.O.B.

Cathy Clark raised issues on the Ofcom guidance (1st Edition Oct-2015). This is being collated and progressed in order to feed into an up-issue, but comments need to be on specific points, not generalities. Examples include a typo which gave rise to /T instead of /A, clarity around /MM etc.

11 Date of next meeting

By default the next meeting of the Spectrum Forum would be on Nov 5th 2016. Opinions will be sought on this from forum members.

The meeting closed at 15:58.

Actions Summary

Para Ref	Action	Who	Comment/PMN
6.2	RAYNET 7.6MHz Talk Thru channel direction to be reviewed as part of the 2016 Band Plan updates process	Murray G6JYB	Revised in 2016 band plan
7.6	Review AM note – as part of the 2016 updates	Ian G4FSU	Revised in 2016 band plan
8	Draft a IARU Vienna paper on the 10 MHz band	Ian G4FSU	Paper VIE16_C4_05 submitted