

Radio Amateurs' Emergency Network Response to London 2012 Olympic Games and Paralympic Games Draft Spectrum Plan

Comments:

The Radio Amateurs' Emergency Network (RAYNET) is recognised as the UK's principal organisation comprising Radio Amateurs who provide voluntary radio communications in support of the activities of Emergency Services and Government Departments, and to local communities in times of disaster and emergencies, and in providing support to local community events.

While not directly involved in the Olympics, RAYNET will need to continue to provide a back-up service to our Users during the event, both for 'business as usual' activities as well as responding to any requirements for our services for incidents not associated with the Olympics. As such we are especially concerned with any impact the games may have on the Amateur Service and Amateur-Satellite Service spectrum.

Question 1: Do you have any comments on the three approaches we have taken to spectrum planning for the London Games?

The description of the approaches in the consultation document has focused on the assessment of demand at past games but not apparently the environment within which the games themselves have been held. Earlier in the document it is implied that the effect on existing users of spectrum is minimised but it may have been useful to incorporate this more explicitly in the three approaches.

Question 2: Do you have any comments on the scope for reducing demand by using fibre-wireless networks within venues?

Any option to reduce demand on spectrum by the use of fibre-wireless is supported, especially in the already congested London area.

Question 3: Do you have any comments on the scope for reducing demand by deploying a London-wide cellular receive system?

The deployment of a London-wide cellular receive system while possibly having significant implementation costs would avoid the use of aerial relay platforms and the sterilisation of spectrum over a wider area than that required.

Question 5: Do you have any comments on the scope for maximising supply by using spectrum more efficiently?

Appears to be a duplicate question to Q6.

Question 6: Do you have any comments on the scope for maximising supply by reusing spectrum efficiently?

The consultation document indicates that it is not necessary to protect wireless services used at the London games from harmful interference outside their required area of operation, given some proposals made later in the document it would have

been helpful if the need to protect services outside London from the effects of the London games had been emphasised.

The scope for using shielding materials as part of building construction to maximise frequency re-use may be optimistic in the current financial environment where the capital costs of incorporating such shielding may be seen as excessive compared to the revenue costs of temporary disruption to other users.

Question 7: Do you have any comments on the scope for maximising supply by using higher-frequency spectrum?

No, though the principle of such use is supported to reduce impact on other users.

Question 8: Would you consider using free-space optics technologies?

RAYNET would not itself use free-space optics technologies but their use on point to point links by others would obviously reduce spectrum demand.

Question 10: Would you be willing to use LOCOG's land-radio network?

RAYNET would not consider the use of LOCOG's land-radio network.

Question 11: If not, how would you prefer to receive land-radio services?

The continued use of the Primary and Secondary allocations to the Amateur and Amateur-Satellite Service.

Question 12: Would you be willing to use CTCSS tones/DCS codes to allow the same channel to be used for land radio in both the Olympic Park and the River Zone?

Should there be a need to allocate channels within the Amateur bands (noting the comment in 5.11 that such bands have been used in the past) the implementation of CTCSS/DCS may be problematic since there is a great deal of legacy equipment in use which may not be capable of such operation.

Question 13: Do you have any other comments on our assessment and proposals for land radio?

The comment in 5.11 that radio-amateur bands have been used in past games is incongruous with the assumption and summary conclusion stated in 4.47 that Ofcom does not anticipate revoking or varying existing licences to meet the requirements of the games. While Ofcom's stated preference is to meet demand in 137-173MHz, the specific mention of the earlier use of 430-440MHz is concerning since existing Amateur licence conditions already exclude the use of 1MHz of this band within a 100km radius of Charing Cross. Any further variation would not be consistent with the desire not to revoke or vary existing licences.

Question 16: Do you have any comments on our assessment and proposals for talkback?

Table 8 specifically includes the Amateur and Amateur-Satellite secondary allocation at 430-440MHz 'subject to co-ordination with MoD'. To avoid impacting the normal operations of the MoD and the Amateur and Amateur-Satellite service, Ofcom's proposals in 6.18 are strongly supported.

Question 18: Which bands would you prefer to use for wireless cameras?

Not relevant to our use of spectrum.

Question 27: Do you have any comments on our assessment and proposals for telemetry and telecommand?

Interference constraints in the band 433.05-434.79 from existing licence exempt, Amateur and MoD usage are not considered. This is dealt with in more detail in the answer to Question 37.

Question 30: Do you have any comments on our assessment and proposals for cultural events?

It is possible that RAYNET may be asked to support the User Services identified in the Amateur licence, which include the Voluntary Aid societies (SJA, Red Cross etc.). It is expected that we would meet our spectrum requirements for these events from our allocations in the 144-146 and 430-440MHz bands in a 'business as usual' environment. The majority of the channels in use are already identified in the Amateur Bandplan, where Talkthrough units are involved then certain non-standard frequencies may be used to provide security from interference at times. The degree of this usage has been identified to Ofcom in the two reports on Talkthrough Usage submitted to Ofcom in previous years.

Question 33: Do you have any comments on our approach to innovation and legacy?

The statement in 12.5 is welcomed though some provision should be made to ensure that any equipment imported to meet the needs of the Games which does not comply with normal UK frequency usage is removed from the country at the end of the games.

Question 34: Do you agree we should establish special licensing arrangements for users covered by the Government's spectrum guarantees? To what extent is your response based on what has worked well at past Games and comparable events?

Yes. This response is based however on the need to adequately control what is a special situation.

Question 35: Do you agree that an online application process using the LOCOG rate-card ordering system is the best way for guaranteed users to apply for spectrum licences? How could the licence-application process be made optimal?

An online application process appears to be the most efficient way but how much information will be made available on available spectrum to potential users Having a rate card may give users that they may choose spectrum which is advantageous to them (reduced retuning) rather than in line with the Ofcom strategy for innovation and minimising interference to 'business as usual'.

Question 36: How can efficient sharing and coordination between Games and non-Games spectrum use best be achieved?

Paragraphs 13.10 and 13.11 raise the prospect of licences being varied for the duration of the games on certain channels and an 'appropriate balance' being struck between the needs of the Games and the needs of the users. This leads to uncertainty over spectrum usage and the co-ordination arrangements referred to in 13.12 should be consulted on as soon as possible. Ensuring that adequate user representation is available for all frequency bands and that those bodies representing users fully consult their own membership and any wider community will take time.

Question 37: How can the use of licence-exempt equipment best be managed?

Licence-exempt equipment has been shown to cause interference to the amateur service and vice versa. Many RAYNET operational frequencies in the 430-440MHz band fall within the section shared with licence exempt equipment and interference is experienced occasionally from these devices. A register of licence-exempt equipment should be maintained through the Games so that sources of interference can be identified, located and closed down to prevent disruption to licensed users of spectrum. This is also probably the only way to achieve and enforce the practical measure of preventing certain types of equipment being imported.

There are documented complaints of wide area interference from licence exempt equipment (e.g. crane avoidance systems) to the amateur service where the equipment in use did not comply with UK standards, some controls must be in place to avoid this equipment being used during the games or inappropriate equipment being available for use afterwards.

Question 39: How can interference management be most effective in ensuring the successful running of the London Games? Are there other measures we should consider implementing? To what extent is your response based on previous experience of similar events?

The requirement to operate within the terms of the authorisation should be enforced, especially where controls may be weaker such as with licence exempt devices. The scale of the event and the quantity of equipment deployed however appears to make the deployment of dedicated interference resolution teams a requirement rather than a consideration.

Greg Mossop, The Radio Amateurs' Emergency Network

