### OFCOM DDR Band Manager Consultation Response -SIS Outside Broadcast Ltd

Question 1. The executive summary sets out our proposals for the DDR band manager award. Do you agree with these proposals?

### Spectrum included in the band manager award

SIS agrees with OFCOM's proposal that all spectrum used by the PMSE industry should be managed by a single organisation. The operational benefits of this far outweigh any commercial disadvantage of a monopoly supplier provided that there is an effective performance review process.

#### Licence Term & Period of notice

SIS believes that long term stability is vital to enable investment in equipment while acknowledging that in a developing technological field future demands are sometimes hard to predict. Spectrum users need a reasonable notice period if they have to re-equip in order carry on their business in a different piece of spectrum.

#### Licence fee

SIS believes that were AIP to be applied, spectrum costs would increase dramatically with a serious negative impact on PMSE users. An alternative spectrum pricing model must therefore be sought which reflects the real value of the PMSE services enabled by access to spectrum.

### Award process & Selection Criteria

SIS accepts that a 'beauty contest' may be the best way to select the band manager and that the three criteria are broadly correct. However we believe that it must be understood that the band manager will be there to serve the PMSE industry, making a moderate profit, and not follow purely financial objectives in licencing its spectrum to higher bidders, to the disadvantage of the community which is its raison d'etre.

#### PMSE Protection measures

SIS believes that OFCOM's proposals are generally satisfactory but would like to see the formal review of band manager performance be conducted by a group which includes representatives from the user community.

Question 2. Do you agree with our proposal to award access rights to channel 38 that will last as long as we sustain the protection of radio astronomy in the UK?

Yes

Question 3. Do you agree with our proposal to include the interleaved spectrum in channels 61 and 62 in the cleared award?

Local availability of Ch 61 & 62 will continue to be beneficial to PMSE users.

Question 4. Do you have any views on our proposed approach to protecting reception of DTT services?

No response to this question

### Question 5. Do you agree with our proposal not to award the bands between 11.7 GHz and 12 GHz to the band manager?

SIS agrees because these bands are currently unused and believes they should be set aside in order to offer protection of Ku band downlinks, which is also an important objective.

# Question 6. Do you agree with our general approach of awarding the remaining 49 Ofcom-managed bands allocated to PMSE but lying outside the digital dividend to the band manager?

SIS firmly agrees with this idea. Dividing these bands between more than one band manager would lead to increased aggregate operating costs to be recovered and be ineffective at controlling user prices. A single organisation should be well able to comprehend the variety of spectrum activities within the user groups' businesses.

# Question 7. Do you agree with our proposal to award key PMSE bands to the band manager?

SIS agrees.

# Question 8. Do you agree with our proposal to award 2290-2300 MHz to the band manager on the same terms as other wireless-camera channels at 2 GHz?

Yes. This small piece of additional spectrum will partially offset the loss of utility caused by the interference from new 'CGC' users into 2205MHz.

# Question 9. Do you agree with our proposal to award low-demand PMSE bands to the band manager?

SIS agrees, noting that increasing congestion in traditional wireless camera bands may drive users to seek less attractive alternative spectrum. Since there is little of no demand for this spectrum, the economic model would suggest that prices should be very low or zero.

# Question 10. Do you agree with our proposal to award no-demand PMSE bands to the band manager?

As answer to Q9.

# Question 11. Are there any other types of DTT transmission that should be protected from potential cognitive devices or other factors that we should take into account?

At this stage, cognitive radio devices are still at a research phase. The potential value that such devices may offer to consumers is unknown. Mesh networks, using cognitive access, have been proposed for fixed and mobile internet access but the performance of such systems is unknown. Since significant spectrum is already being targeted for internet access, the additional value of unproven cognitive access technology to the UK economy is questionable.

The protection of existing licenced services is of far greater importance than the new unproven devices and so no consideration should be given to allowing any use of these devices until it has been demonstrated beyond doubt that no licenced spectrum users are adversely affected. The technical challenge of designing a mass market device which is sophisticated enough to detect other users of several different technical standards is immense. Until this has been clearly demonstrated, cognitive devices should not be permitted.

Question 12. Are there any potential future PMSE applications other than currently available wireless microphones, in-ear monitors and talkback systems that you consider should be protected from potential cognitive devices?

Digital wireless mics are still in their infancy and are to be encouraged in order to meet OFCOM's other objectives. While they are being developed it is vital that there is effective protection for all devices, whatever technical standards are employed.

There are also other PMSE applications, such as our Crystal Palace reverse bearer circuits; Ofcom should also investigate the protection requirements of these from cognitive radio.

Question 13. Is there sufficient evidence to require protection for other services such as mobile television, bearing in mind the potentially negative implications of such protection for deploying cognitive devices?

See answer to Q11.

Question 14. Do you have any views on the appropriate notice period for temporary PMSE access to channels 63-68 and/or on whether we should extend temporary access to channels 31-40?

SIS welcomes the increased notice period. We also hope that consideration will be given to any roll out plans proposed by the new licensee, so as to avoid that spectrum lies fallow after the notice period has expired.

### Licence duration

Question 15. Do you agree with our proposal that the licence to be awarded should have an indefinite duration?

SIS agrees.

Question 16. Do you agree with our proposal that the licence to be awarded in respect of bands currently used for PMSE should be subject to no initial period?

### AND

Question 17. Do you agree with our proposal that the licence to be awarded in respect of bands currently used for PMSE should be subject to a notice period for variation or revocation on spectrum-management grounds of one year?

SIS, like any other licencee, needs to take a long term view when investing in equipment. It is impossible to purchase capital equipment without some confidence that it will continue to be possible to licence and operate it. PMSE spectrum has been subject to numerous threats in recent times and would therefore be appropriate to give the users and the new band manager a period of stability to let the business settle down. One year is too short a notice period when equipment has a typical life of about five years.

Question 18. Do you agree with our proposed approach to allowing the new institutional arrangements for PMSE spectrum access to bed down?

OFCOM's approach seems reasonable and we would not expect Ofcom to intervene before normal dispute resolution methods have been exhausted. The industry has not been prone to disputes and so we believe that an effective band manager is not likely to require recourse to

regulatory intervention. SIS will naturally want to establish a good, cordial working relationship with the new Band Manager.

However, if the new licencee proves to be inadequate, Ofcom should be prepared to review band manager performance and intervene promptly to protect the interests of the industry.

Question 19. Do you agree with our proposal that the licence to be awarded in respect of bands with no current PMSE use should be subject to no initial period?

Yes

Question 20. Do you agree with our proposal that the licence to be awarded in respect of bands with no current PMSE use should be subject to a notice period for variation or revocation on spectrum-management grounds of five years?

See answer to Q17.

# Question 21. Do you agree with our proposals for varying or revoking the band manager's licence during the notice period?

SIS accepts the proposals but also feels that poor performance on the part of the band manager might also be grounds to vary or revoke the licence. Any inability to meet reasonable demands from PMSE users should constitute a breach of the terms of the licence. SIS will be happy to play a part in any performance review process.

### Question 22. Are there bands where PMSE users require earlier certainty about longerterm access in the interests of promoting spectrum efficiency than our timetable for the band manager award allows?

In order to meet OFCOM's objective of spectrum efficiency, new investment will be required to benefit from emerging technologies. It therefore follows that the most heavily congested bands (and their likely alternatives) are those where investment is most likely to be required, and thus longer term certainty be required. Such bands are 2.0GHz, 3.5GHz and 7GHz.

### Award design and process

# Question 23. Do you agree with our proposals for the three selection criteria by which we will assess applications for the licence to be awarded?

SIS broadly agrees with the three selection criteria but would comment on them as follows:

Efficient use of spectrum will be an obvious business objective for the new licencee and a consequence of a well run operation. But applicants will need to demonstrate their ability to meet the needs of PMSE users effectively and at a reasonable cost

Understanding of PMSE users is the most important criterion. The relationship between the industry and the band manager will be critical to the success of the new regime in future years. Technological and operational change will require the band manager to be continually open to changing needs of users and to the new opportunities which they bring.

Operational ability is a measure of the competence of the organisation to run their business and so the applicant either passes or fails on this criterion.

Within these three broad criteria the following items in the consultation document are of critical importance:

- knowledge of the PMSE sector (both professional and community users), the equipment it uses, its operational characteristics and the major issues that affect it now and are likely to affect it in the future:
- an approach to spectrum access for PMSE at major events, including advance communication with us where problems are foreseen;
- appreciation of the issue of unauthorised spectrum access by PMSE users and plans for helping to address this; and
- plans for communicating specifically with PMSE users.
- a detailed business plan explaining how delivery of the commitments given in the application will be resourced:
- a detailed description of both internal and third-party dispute-resolution procedures;
- plans of pricing structures and charges for PMSE use of the spectrum to be awarded;
- proposed service levels for PMSE users, including key performance indicators;

SIS believes that certain key performance indicators will have an important impact on the industry. In particular we would like the following elements to be given appropriate weight in the selection process:

- 1. An online booking system to enable quick and efficient licence purchase.
- 2. Speed of response to on-line requests for bookings, and to manual (ie fax/phone) bookings.
- 3. Performance targets for issuing licenses and offering alternative channels should interference issues arise.
- 4. Clarification on how prices will be controlled to ensure that spectrum remains affordable.
- 5. Powers to investigate interference issues and equipment compliance problems.

# Question 24. Do you agree with our proposal to enshrine the commitments to PMSE users made by the successful applicant in the licence awarded to it?

SIS agrees with this proposal.

### Question 25. Do you agree with our proposed approach to assessing applications?

SIS agrees with OFCOM's proposal to publish non-confidential sections of applications. We welcome a transparent approach to the decision.

#### Licence conditions

Question 26. Do you agree with our proposal to use the block-edge mask approach to determine the technical licence conditions relevant to this award and to base these masks broadly on existing arrangements for PMSE spectrum access?

SIS agrees and would add that technical licence conditions should require compliance with relevant ETSI standards.

### Question 27. Do you agree with our proposal to set a separate fee for each Ofcommanaged band to be awarded?

SIS believes that the factors affecting spectrum price vary between different parts of the spectrum and their various applications. To this extent different pricing models will be required in different bands. The applicant will need to present their proposals clearly in this regard. SIS remains concerned that an AIP based pricing model will drive spectrum prices out of an acceptable range and urges OFCOM to reconsider this point.

Question 28. Do you agree with our proposal initially to set fees for access to MOD-managed spectrum on a comparable basis?

Yes.

Question 29. Do you agree with our proposal to determine the band manager's licence fee first by deriving estimates of the opportunity costs of the spectrum to be awarded and second by setting band-by-band prices that strike an appropriate balance between our objectives for this award?.

SIS believes that significant increases in licence costs will have a negative effect upon the industry. While the indicative figures in the Consultation document are less alarming than some other estimates, they are based upon some underlying assumptions which may be altered in future. In any case, the calculation methods of AIP would require close checking because opportunity costs are based on a hypothetical calculation which may not reflect reality.

The calculations proposed by Ofcom would represent a very significant increase in the fees paid by SIS. Furthermore, we are worried that any further work would lead Ofcom to increase the fees beyond the estimates currently provided. There is therefore no guarantee that the prices will continue to be affordable for PMSE users, and indeed there is a serious risk that they are priced out of the bands they use with no alternative.

SIS is concerned that the band manager may be incentivised to find non-PMSE users for the bands, and that the pricing regime may prevent PMSE users from using them.

SIS is also concerned that a significant increase in fees could lead to an increase in unlicensed use, which would be particularly damaging for broadcast users who require high quality, interference free spectrum.

Question 30. What are your views on the options for phasing in AIP to full opportunity cost?

SIS accepts that three years is a reasonable transitional period.

Question 31. Do you agree with our proposal to set the band manager's licence fee for three years and to review it after that period?

#### And

Question 32. Do you agree with our proposal to review the band manager's licence fee periodically but no more frequently than every three years thereafter?

SIS accepts that three years is a minimum period of price stability. However any changes in price need to be introduced only after a consultation process.

Question 33. Do you agree that where the interleaved spectrum to be awarded to the band manager is used for the operation of a DTT multiplex, we should replicate the ownership restrictions in the Broadcasting Act regime relating to (a) local authorities, (b) political bodies, (c) religious bodies and (d) bodies exerting undue influence but not replicate restrictions relating to (e) broadcasting bodies and (f) advertising agencies?

No response to this question.

Question 34. Do you agree that we should facilitate interoperability between existing DTT multiplex operators and new operators using the interleaved spectrum awarded to the band manager?

No response to this question.

Question 35. What are the merits of our proposed approach to providing spectrum information, in particular concerning the type of information that might be helpful and any impact that publishing information might have both on licensees and the wider spectrum market?

SIS supports in principle OFCOM's proposal to publish retrospective licence data information, but only subject to commercial confidentiality issues. SIS welcomes future consultation on this subject.

### **PMSE** protection

Question 36. Do you agree with our assessment of whether our approach to awarding this spectrum appropriately promotes competition and efficiency?

SIS agrees with Ofcom's assessment that competition and efficiency are as well served as is possible in this situation.

Question 37. Do you agree with our proposal that "reasonable" PMSE demand for the spectrum awarded to the band manager should be defined as the actual demand from PMSE users at FRND prices?

SIS believes that 'reasonable' PMSE demand can best be defined as actual demand at current prices. The actual values of FRND prices are as yet unknown and such data cannot therefore be used for any meaningful comparisons.

Question 38. Do you agree with our proposals for ensuring that the band manager meets reasonable PMSE demand on FRND terms?

SIS welcomes Ofcom's commitment to consult further on their application of FRND rules. It agrees with Ofcom that the objective of requiring FRND terms should be to avoid the opportunities for a single, dominant band manager to assign spectrum inefficiently and generate excess profits. It also accepts that prices should reflect the band manager's administrative costs and also allow for a reasonable return on the cost of the investment.

Where there is excess demand caused by high levels of PMSE use, we understand that prices could be increased to help ration demand. However, there should be some form of protection to ensure that no user can, for anti-competitive reasons, bid for more spectrum that it really needs, crowding out other users. It should be a condition imposed upon licencees that they actually use the licence, and do not acquire it purely for the purposes of preventing other PMSE users from having access to those channels.

When ensuring fair allocation of spectrum to competing users, the price should not be the only factor taken into account, for instance, those providing the main 'host' coverage of an event should have priority over non rights holders.

SIS agrees with Ofcom that there could be some price differentiation between PMSE users based on service offering or market conditions, such as variations in bandwidth or power;

geographic area, particularly where there are differences in population coverage; duration or repeated pattern of assignment. Any such detailed arrangements must however be clear, easily understood and enforceable.

SIS will respond in due course to Ofcom's forthcoming consultation on the application of FRND rules.

Question 39. Do you agree with our proposal to incorporate a suitable licence condition to enable us to access the spectrum awarded to the band manager to meet the requirements of the London 2012 Olympic Games and Paralympic Games and the Glasgow 2014 Commonwealth Games?

SIS agrees with this proposal and urges OFCOM to consider using the skills of its Band manager to support the frequency allocation at the games.

# Question 40. Do you agree with our proposed approach to spectrum access for other major events?

SIS welcomes Ofcom's recognition of the importance of major events to the cultural, economic and social life of the UK. It also welcomes Ofcom's acknowledgment that since accessing sufficient spectrum for these events will become more difficult over time. We would hope that the successful band manager will be pro-active in sourcing additional spectrum for its clients to meet periods of high demand.

# Question 41. Do you agree with our proposals concerning disputes between the band manager and PMSE users as a whole?

SIS feels that the proposals offer a fair degree of protection.

We would urge that OFCOM include a group of representative PMSE users in the regular review process.

# Question 42. Do you agree with our proposals concerning disputes between the band manager and individual PMSE users?

SIS agrees with these proposals.

#### **Next steps**

### Question 43. Do you agree with our estimate that the band manager will require six months from licence award until it begins operating?

This will depend largely upon the successful applicant but whatever arrangements are made, the transition between regimes should be smooth and disruption to PMSE users should be minimised.