



Opendab

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Ofcom small-scale DAB
Riverside House
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Attn. Jon Heasman

Dear Jon,

This first response (of two) to Ofcom's consultation 'Licensing small-scale DAB' is on behalf of Opendab C.I.C. an organisation founded earlier this year to support the many radio stations and aspirant radio groups who have expressed an interest in small-scale DAB.

Collectively Daniel Nathan, Paul Boon and Lawrie Hallett have first hand public service, commercial and community broadcasting experience dating back to a period that precedes the Broadcasting Act 1990. In addition Daniel Nathan and Lawrie Hallett are small-scale DAB trialists.

To ease Ofcom's administration process Brighton and Hove Radio (Brighton trialist) and Sunbury Digital (West London multiplex prospective applicant) wish their responses to this consultation to be as this Opendab consultation response. Future Digital Norfolk (Norwich trialist) has submitted a separate response in addition.

In considering small-scale DAB overall, we notice a drift from the original aims of this innovative broadcasting development towards a regulatory regime that would be costly, onerous, unnecessary and unwelcome. For example, in terms of RF engineering in the low power quarter of the spectrum arena there are examples in other sectors, of regulatory relaxation, but for broadcasting and small-scale DAB in particular the opposite is the case. Similarly in licensing small-scale DAB operators and programme services, the weight of regulatory imposition is such that again in UK broadcasting, the smallest sector (the sector with fewest resources) is regulated the most. This seems counter intuitive and in this consultation response we ask Ofcom to address what we see as impediments that will impact negatively on the development of small-scale DAB.

We are encouraged to note Ofcom's regulatory principles which state that it '*will always seek the least intrusive regulatory mechanisms to achieve its policy objectives*' and also to know that the regulator '*will strive to ensure its interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome*'.

The Directors and members of Opendab look forward to engaging further with Ofcom in order to deliver the potential public benefit promised by this nascent broadcast platform.

Paul Boon
On behalf of Opendab C.I.C.

Opendab C.I.C.
Response to Ofcom Consultation: Licensing small-scale DAB

Question 1: Do you agree with the planning principles and methodologies that we will use in our work to refine the coverage area plan for small-scale DAB?

3.11	Ofcom considers it appropriate to plan for the provision of small-scale DAB (SSDAB). We agree.
3.16	<p>We agree in principle with the approach set out in defining coverage areas and licensed areas.</p> <p>However, we note that the nature of the propagation of DAB frequencies is such that achieving adequate coverage across all parts of (most) defined polygon areas will become severely challenging using low powers. One resolution may be to establish a number of in-fill transmitters in order to achieve adequate field strength across all parts <u>within</u> the original polygon area. In order to facilitate this, we ask for Ofcom to adopt a sympathetic policy which allows for:</p> <ol style="list-style-type: none"> 1. an incremental build-out of in-fill transmitters in different localities within the wider coverage area (we would stress that we are not proposing an expansion of a given area by stealth, but rather requesting the opportunity to ‘plug holes’ in localities where actual received signals differ from expected coverage) and, 2. to permit this in-fill function to be accomplished at any time over the duration of the licence. This would be in order to allow for small-scale multiplex operators to build up the necessary funds to procure and install necessary equipment on an ‘as required’ basis. This is particularly important given that the economic model for this new sector of broadcasting is most likely to be weak rather than strong. <p><u>See also response to paragraph 4.15 below.</u></p> <p>Both these points above would be on the proviso that the 63dBµV/m signal strength limitation is not exceeded beyond the edge of the coverage area agreed on award of licence.</p>
3.17 – 3.18	Ofcom’s proposal in protecting services from interference is understood and accepted. However, at the point of advertisement for a small-scale multiplex within a macro area, how does Ofcom propose to define the adjacent co-block areas at the same time when the location and powers are unknown? Is this not a chicken and egg situation?
3.19 – 3.21	The chosen planning tool is acceptable.

Question 2: Do you agree with our proposed approach to the required technical licence conditions for small-scale radio multiplex services, and the proposed amendments to the Digital Radio Technical Code?

3.59 – 3.63

Required technical standards. We note that Ofcom says it intends to implement the proposed legislative amendment that signals carried ‘should attain reasonable standards’ – a regulatory relaxation. However we understand that in certain cases, for example, the filtering critical mask, (a costly component in a small-scale DAB multiplex system) Ofcom intends to impose the same standards as those applied to large-scale DAB (i.e. existing Local and National multiplex licensees).

This appears to be a disproportionate level of regulation for the following reasons:

1. The starting point for regulating large-scale DAB is one where technical standards are higher than those agreed as an international standard.
2. The likely power radiated by small-scale DAB will be much lower than that for large-scale DAB, meaning that any risk of interference will be many orders of magnitude lower.

Opendab notes Ofcom’s regulatory principles which include that it ‘*will always seek the least intrusive regulatory mechanisms to achieve its policy objectives*’ and also that the regulator ‘*will strive to ensure its interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome*’.

In the light of this we would urge Ofcom to adopt the recommendations of the associated standards from the European Telecommunications Standards Institute (ETSI) rather than adopt a rigid and limited set of parameters. The ETSI standard (EN 302 077) affords more flexibility for spectral limits at progressively lower power levels, more akin to the ethos behind small-scale DAB. These standards were agreed by international consensus.

In addition equipment which conforms to the harmonised standards, set out in the Radio Equipment Directive, should be allowed to be placed into service without additional, unnecessary and burdensome regulation being imposed by Ofcom on the radio sector especially when such restrictions are not placed on other sectors outside UK radio broadcasting.

3.64 - 3.68

In one part of this section Ofcom requires the use of DAB+. While welcomed for the same reasons as set out by Ofcom, this requirement brings with it a side-effect that needs to be taken into full account elsewhere in the overall licensing process for SSDAB.

The opportunity for small-scale muxes to transmit only in DAB+ while positive from a technical perspective will pave the way for substantial economic realignment particularly, if as is highly likely, existing Local muxes follow suit and become predominantly DAB+ operators too. While demand among service providers is accepted as being high (as Ofcom describes in 3.65 in the consultation document) the supply of available capacity for DSP and C-DSP licensees will also increase greatly as more services and multiplex operators, both Local and small-scale, adopt the more spectrally efficient DAB+.

It is accepted that this will be a substantial public/societal gain. However, this dramatic shift in supply and demand will force challenging market conditions on many, if not all, start-up small-scale mux operators. While greater competition can be regarded as positive, there will be a need to take account of new entrant multiplex operators who will be tasked with selling newly available capacity units while being faced with a ‘product’ that in

	<p>terms of monetary value will be in decline.</p> <p>Therefore, the effects of a fall in carriage rates resulting from the widespread adoption of DAB+ is an economic impact that needs to be fully appreciated by the regulator as an integral part of the licensing process, because lower levels of income would make many SSDAB multiplexes, some in areas with quite a high population, uneconomic.</p> <p>We also note that further downward pressure will be placed on the value of carriage. Drawing from the small-scale DAB trial we would suggest that the capacity charges reported to Ofcom do not represent a useful benchmark. This is because the ten trialists represented a closed market. Once small-scale DAB becomes more widely licensed, programme service providers can be expected to gravitate towards those muxes serving larger (more lucrative) areas leading to a fall in the rates charged for capacity on mutplexes serving smaller populations and rural areas.</p> <p>To summarise, a shift in supply and demand (the DAB+ effect) together with the effects of trading in an open market, will exert sharply downward pressure on the price of capacity sold by new small-scale multiplex operators.</p> <p>We wish to highlight to Ofcom, that the imposition of regulation comes at a very real cost to operators. Small-scale DAB operators could be faced with the dual impact impact of overregulation coupled with a decline in the value of capacity. We suggest that Ofcom should take care not to overregulate this nascent small sector</p> <p>As a footnote to the economic viewpoint expressed above, there is a general sense that Ofcom has viewed small-scale DAB licensing only from the perspective of it being a platform that has low capital cost at the point of entry i.e. the transmission equipment is much less expensive than the DAB systems used by Local DAB licensees. However, it is important to note that operating costs in a number of areas will be substantial and these also need to be factored in to any economic assessment.</p>
4.15	<p>We note in Ofcom’s footnote 11 relating to paragraph 4.15 in the consultation document (award and grant of a licence) the reference to ‘including all transmitters on-air’. This suggests little flexibility to permit development of in-fill transmitters incrementally (please see our response to paragraph 3.16). We ask Ofcom to accept that, as set out in our answer to 3.16, the economics of building out within a polygon/licensed area will be such that often it will not be financially possible to commence with all transmitters transmitting on the first day of the licence. However under normal circumstances we would expect a substantial part of the polygon/licensed area to receive a signal on day one.</p>
<p>Question 3: Do you agree with Ofcom’s proposed approach to setting the level of reserved capacity for C-DSP services on small-scale radio multiplex services?</p>	
4.16	<p>In this paragraph Ofcom refers to a “relative lack of technical complexity in small-scale multiplexing”. In comparison with FM transmission even at a moderate output power level (say, 200-500 Watts e.r.p.) the small-scale DAB platform cannot be said to be without technical complexity.</p> <p>This suggests that Ofcom’s assumption has room for further investigation.</p>

4.21 – 4.28	<p>Ofcom has set out its proposals regarding the reservation of capacity for C-DSP licence holders.</p> <p>Most large cities and conurbations are areas where there is exceptionally high demand from would-be C-DSP broadcasters (i.e. those in 2018 declaring an interest to Ofcom and existing community and small-scale commercial radio licensees). In more populated areas this infers that Ofcom’s approach would be to mandate reserved capacity for more than four C-DSP services each using a minimum of 48 kbit/s capacity units.</p> <p>We note that para. 4.25 seeks to strike a balance between reserving capacity and the ‘viability of the small-scale multiplex service in question’. This is essential because it is vital to appreciate the other side of a multiplex operator’s duties, namely that in order to achieve adequate, robust, coverage whilst allowing for the particular transmission constraints imposed by Ofcom and also factoring in international interference constraints; the <u>costs</u> of carriage delivery will be disproportionately high. A fact exacerbated by the high cost of suitable urban transmitter sites. Everyone in a city seems to know the value of their rooftop.</p> <p>Therefore imposing a higher minimum amount of reserved capacity for C-DSP licensees, based purely on demand, could make running a small-scale mux in the city uneconomic, especially given that capacity rates of charge will fall (see above economic observation in answer to Question 2). With specific regard to community of interest C-DSP licensees, we view the restriction to prevent these services from making use of ‘reserved capacity’ on any number of small-scale multiplexes as onerous and should be lifted because while does not represent the needs of community of interest C-DSPs, neither is it a stipulation in the anticipated legislation.</p> <p>Finally should C-DSP services choose to decline their full reserved allowance of 48 kbit/s there is the prospect of a large number of capacity units lying fallow. As this could be seen as not addressing Ofcom’s objective to use the radio spectrum in an effective way, we would request a more flexible approach from that set out in paragraph 4.27. One that has the interests of C-DSP licensees at heart, but also one that reflects the realities of multiplex management.</p>
4.29	<p>In this paragraph Ofcom proposes that mux operators have a duty to check the validity of C-DSP licensees. Opendab suggests that Ofcom should publish online all C-DSP licence documents and update these where necessary. Mux operators can then look up relevant C-DSP information online – from a reliable central source provided by the regulator. This would avoid the likelihood of disputes arising from potential mis-information being given.</p> <p>Adopting this proposal would make the diligence responsibilities imposed on mux operators by Ofcom, manageable, when otherwise they might not be.</p>
<p>Question 4: Do you agree with the factors we are proposing to take into account of in deciding the order and timescale in which Ofcom will advertise small-scale radio multiplex licences?</p>	
5.2 – 5.3	<p>The factors proposed by Ofcom appear appropriate.</p>

Question 5: Do you agree with our proposed approach for assessing the technical plans submitted in small-scale radio multiplex licence applications?	
5.18	<p>We make one observation regarding the assessment of Technical Plans. Opendab understands why Ofcom does not wish to accept variations to an applicant’s technical plan once applications have been submitted and during the application process.</p> <p>However, following award of a licence we trust Ofcom would adopt a more flexible approach.</p> <p>This is because as it is most likely that small-scale DAB will only be able to afford secondary sites (i.e. not the primary ones rented out by the established site providers such as Arqiva) there is a real prospect that an agreed use of a site might come to naught prematurely and this very often beyond the control of a mux operator. This is further aggravated by the commercial reality that no applicant will be in any position to sign contracts with site operators prior to licence award.</p> <p>We would stress that Ofcom needs to adopt a clear policy that in such circumstances, flexibility is afforded to mux operators to make changes at a point in time that is appropriate for them.</p>
Question 6: Do you agree with our proposed approach for assessing the ability of applicants to establish their proposed small-scale radio multiplex service?	
5.32	The proposed approach set out by Ofcom appears appropriate.
Question 7: Should Ofcom require that the studio of a C-DSP licensee be located within the coverage area of the small-scale radio multiplex service it plans to broadcast on? Please explain the reasons for your view.	
6.31	<p>This requirement can be seen as a useful proxy for Ofcom when considering the localness of a service.</p> <p>However this is only part of the story, because some C-DSP applicants will not serve a geographic community but a community of interest, for example some serve a disability, a religion or serve LGBT/BAME members of society or other ‘equality’ groups.</p> <p>In the light of this Ofcom may wish to reconsider imposing this requirement. See also note at Question 9 (below) for reasons for this view.</p>
Question 8: We propose that holders of corresponding analogue community radio and DSP licences apportion their income equally across their licences, unless there are compelling reasons why a different apportionment is reasonable. Do you agree with our suggested approach?	
6.32 – 6.36	<p>Ofcom’s approach appears to represent an unreasonably heavy regulatory option especially when are reasons to favour lighter regulation and ways to introduce greater regulatory relaxation.</p> <p>In paragraph 6.32 Ofcom is “required to ensure that C-DSP licences have <u>similar</u> restrictions” to analogue community radio licence holders. Paragraph 6.33 states that funding rules, namely the “fixed revenue allowance” of £15,000 would apply across the combined analogue and C-DSP licences.</p>

	<p>However, from a practical perspective, these limits are overly restrictive. The reason is that any fair assessment of UK community radio (evidenced by Ofcom’s Communications Market Report) is that community radio faces revenue decline with many services making little or no operating margin (profit). Somehow, threatened with the permanent loss of audience as listeners migrate from analogue to digital, these same services are expected to conjure up the wherewithal to simulcast their services on small-scale DAB within the financial constraints imposed upon operating a single analogue licence.</p> <p>A way should be found to help community radio licensees to defray these costs, in the same way commercial radio was, and indeed continues to this day, to be helped financially (through automatic licence renewal in return for simulcasting on DAB).</p> <p>We call on Ofcom to do two things.</p> <ol style="list-style-type: none"> 1. using the term ‘similar’ [sc.61A of the 1996 Act (modified)] revise the rule set out in 6.32 so that community radio stations that are bearing the cost of simulcasting have the funding rules applied separately across DAB and analogue, rather than together. An alternative to this could be to give an ‘secondary’ fixed allowance (say, £8,000) against a C-DSP that is simulcasting an analogue community radio service. 2. Using its influence and as an evidence based regulator, seek to encourage DCMS to revise upwards (as a matter of urgency and ahead of any wider radio review) the ‘fixed revenue allowance’ of £15,000. <p>In conclusion, the funding constraints imposed by Ofcom should fully take account of the economics of small-scale DAB broadcasting and be aligned to a new market that will see revenues substantially lower than those indicated from the SSDAB trial which are unrepresentative. (See also economic observation [supply and demand] in answer to Question 2.)</p>
<p>Question 9: Do you agree with our proposal that a prospective C-DSP service provider will be able to apply for a C-DSP licence once we have invited applications for the small-scale radio multiplex licence upon which their proposed C-DSP service is intended to be provided?</p>	
<p>7.3 – 7.9</p>	<p>This section of the consultation document seems to suggest that analogue community radio services can only apply for a C-DSP licence once the process to advertise a SSDAB mux in their ‘home’ area has commenced.</p> <p>However, some C-DSP applicants will not serve a geographic community but a community of interest, e.g. some serve a disability, a religion or serve LGBT/BAME members of society or other ‘equality’ groups. Ofcom’s proposal in relation to this question could well have a detrimental impact on C-DSP applicants serving these groups for whom location is not of central importance. Those most affected would be those wishing to broadcast to an area outside their ‘home’ polygon area if their ‘home’ polygon area has yet to be advertised.</p> <p>By following this path Ofcom would risk making an imposition only for the sake of the regulator’s administrative convenience.</p> <p>As with our response to Question 7, the consideration of the siting of these C-DSP applicants in terms of C-DSP licensing and the relevance of location of the studio base are issues on which Ofcom might wish to reflect further.</p>

Predicted power	
Annex A2. 24	<p>In part a) of A2.24 Ofcom states: <i>'we predict that a 100W e.r.p. will generally provide coverage over a radius of 13-15 km, although this will vary with factors such as height and local terrain'</i>. We note that Ofcom does not specify at what field strength. Having set out elsewhere in the consultation that the permitted maximum field strength at the edge of a polygon/licensed area will be 63dBµV/m we believe a 13-15 km radius to be optimistic taking account of the other factors (7-9 km being far more likely). While mobile coverage at 54dBµV/m may just about reach the 13 km distance, this signal would not be adequate for indoor reception. We trust Ofcom will take full account of this observation.</p>
Conclusion	
<p>In considering small-scale DAB overall, we notice a drift from the original aims of this innovative broadcasting development towards a regulatory regime that would be costly, onerous, unnecessary and unwelcome. For example, in terms of RF engineering in the low power quarter of the spectrum arena there are examples in other sectors, of regulatory relaxation, but for broadcasting and small-scale DAB in particular, the opposite is the case.</p> <p>Similarly in licensing small-scale DAB operators and programme services, the weight of regulatory imposition is such that again in UK broadcasting, the smallest sector (the sector with fewest resources) is regulated the most.</p> <p>This seems counter intuitive and in this consultation response we ask Ofcom to address what we see as impediments that will impact negatively on the development of small-scale DAB.</p> <p>We are encouraged to note Ofcom's regulatory principles which we refer to earlier in this document but bear repeating. They state that Ofcom <i>'will always seek the least intrusive regulatory mechanisms to achieve its policy objectives'</i> and also that the regulator <i>'will strive to ensure its interventions will be evidence-based, proportionate, consistent, accountable and transparent in both deliberation and outcome'</i>.</p> <p>The Directors and members of Opendab look forward to engaging further with Ofcom in order to deliver the potential public benefit promised by this nascent broadcast platform.</p>	