
Digital Switchover (DSO) Programme

Radio DSO Block 5A Suffolk

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1 Suffolk DSO narrative

The current Suffolk local licence is not yet built on Block 5A. This multiplex has not been advertised therefore case 1 and 2 do not exist and are not presented in this document.

This multiplex is co-block with Derby and Oxfordshire neither of which has been built. This multiplex does suffer some interference from Derby or Oxfordshire, mainly to the west and northwest of the multiplex area.

The current and proposed block 5A allocations are shown below in figure 1.

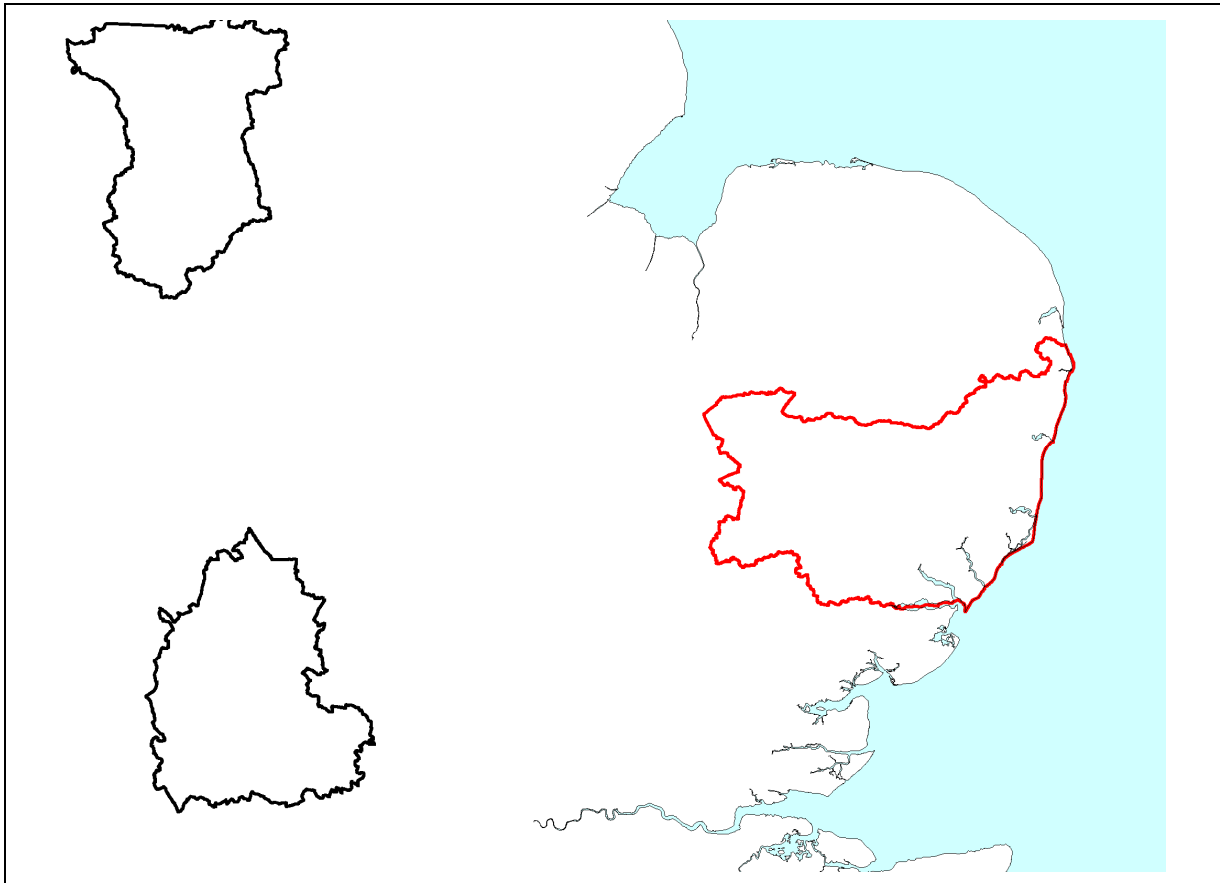


Figure 1.1: 5A block allocations

In planning for each multiplex Ofcom have required coverage assessments:

- For each area four maps should be produced as follows:
 1. **Current Situation** - Map showing current actual coverage (or launch plans where a multiplex has not yet launched), including any transmitters which are required as part of the current licence, but which are not yet operational.
 2. **Modified Network 1** - Map showing the above, plus any improvements to existing infrastructure.
 3. **Modified Network 2** - Map of the above, plus additional smaller infill transmitters focused on areas where FM coverage is robust.
 4. **Modified Network 3** - Map of the above, plus additional transmitters to provide near universal coverage.

For case 1: Current situation

This case is not relevant as this multiplex has never been advertised and therefore no existing or launch plans were licenced.

For case 2: Modified Network 1

Not applicable.

For case 3: Modified Network 2

To match the BBC Local FM services 11 transmitter sites are required. It should be noted there is an overlap in the northern part of the editorial area with Norfolk.

In addition to the west of the editorial area there is an issue:

- Lakenheath - Brandon Mills – Barton Mills -- These areas are not served by local FM and therefore not included in case 3; however these areas are not served well by adjacent multiplexes and therefore if DAB coverage is required in these areas it is logical to assign them to Suffolk rather than the adjacent multiplexes.

For case 4: Modified Network 3

An additional three transmitters are required for filling the multiplex.

1.1 Outgoing interference and sensitivity to other co-block multiplexes

This multiplex does suffer from some interference from both Derby and Oxfordshire, but Derby is more significant as it does reduce the coverage in the western part of the coverage particularly the mobile coverage. Therefore additional sites have been added to improve indoor and mobile coverage and to 'protect' against any incoming interference. In general however this multiplex works well. There is some outgoing interference to the Oxfordshire and Derby but it is not significant.

2 Coverage of the Multiplex

2.1 Coverage Maps

Coverage maps for the DAB are presented with three colours:

Blue = Mobile coverage (99% locations at 99% time)

Dark Green = Indoor coverage (80-95% locations at 99% time)

Light Green = Robust indoor coverage (>95% locations at 99% time)

Figure 2.1 Case 3

Figure 2.2 Case 4

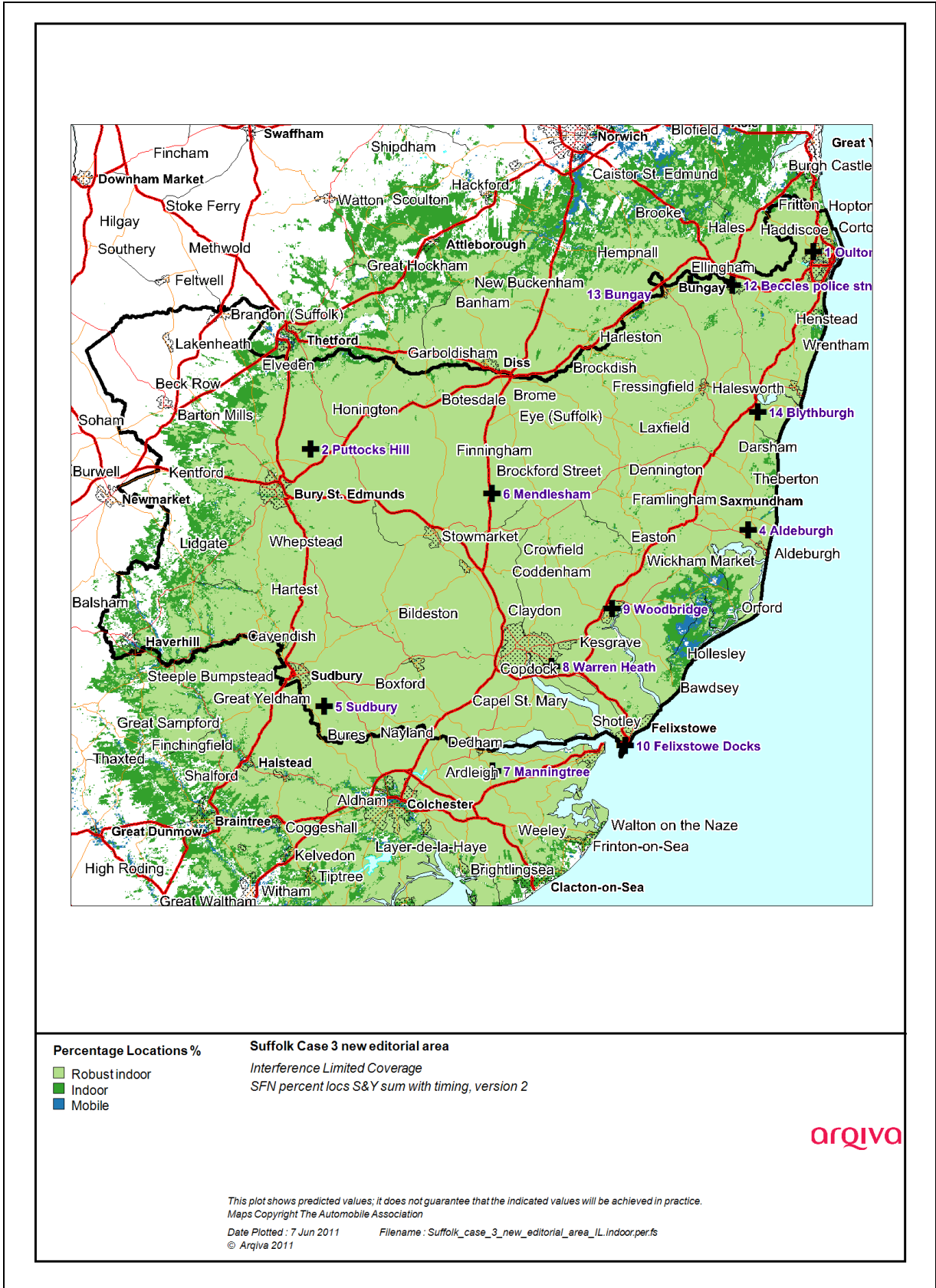


Figure 2.1: Case 3 (modified editorial area)



Figure 2.2 Case 4 (modified editorial area)

2.2 Population Coverage tables within Editorial Area

Table 2-1. Population coverage proportional indoor 1% time interference

: Total 317084

Site scenario and incremental additional sites	Site Type	Individual Gross Interference Limited coverage within Editorial Area	Number of households within Editorial Area	Increase in number of households	Incremental percentage increase of population	Percentage of Editorial Area
Manningtree	Existing DAB site	63841 (20.13%)	63841	-	-	20.13
Mendlesham	Existing DAB site	59574 (18.79%)	130480	66638	21.02	41.15
Oulton	Existing DAB site	35954 (11.34%)	171122	40642	12.82	53.97
Warren Heath	New Site	82425 (25.99%)	207869	36746	11.59	65.56
Puttocks Hill	Existing DAB site	31630 (9.98%)	234611	26742	8.43	73.99
Sudbury	Existing DAB site	23136 (7.30%)	250497	15886	5.01	79.00
Aldeburgh	New Site	11812 (3.73%)	270215	19718	6.22	85.22
Mildenhall	Existing DAB site	8552 (2.70%)	280798	10584	3.34	88.56
Felixstowe Docks	New Site	13850 (4.37%)	288089	7291	2.30	90.86
Haverhill	New Site	9744 (3.07%)	295284	7195	2.27	93.12
Blythburgh	New Site	8157 (2.57%)	299913	4629	1.46	94.58
Woodbridge	New Site	12240 (3.86%)	303675	3763	1.19	95.77
Brandon E	New Site	5148 (1.62%)	310112	6437	2.03	97.80
Beccles police stn	New Site	6442 (2.03%)	311923	1811	0.57	98.37
Bungay	New Site	2831 (0.89%)	312782	859	0.27	98.64

Case 1	-	Yellow =	Original licence application N/A
Case 2	-	Purple + Yellow =	Modified Network 1 (N/A)
Case 3	-	Purple + Yellow + Orange =	Modified Network 2
Case 4	-	Purple + Yellow + Orange + green =	Modified network 3

Table 2-2. Road coverage 99% location 99%T: Total roads 702 km

Site scenario and incremental additional sites	Site Type	Total road length in km	Increase in number of road length in km	Incremental percentage increase of road length	Percentage of roads within the editorial area
Manningtree	Existing DAB site	121.8	-	-	17.34
Mendlesham	Existing DAB site	301.8	180.0	25.63	42.97
Oulton	Existing DAB site	367.3	65.5	9.33	52.30
Warren Heath	New Site	428.8	61.4	8.75	61.05
Puttocks Hill	Existing DAB site	530.6	101.8	14.50	75.55
Sudbury	Existing DAB site	565.4	34.8	4.95	80.50
Aldeburgh	New Site	608.2	42.8	6.09	86.60
Mildenhall	Existing DAB site	633.7	25.6	3.64	90.23
Felixstowe Docks	New Site	638.8	5.1	0.73	90.96
Haverhill	New Site	647.2	8.3	1.19	92.15
Blythburgh	New Site	653.2	6.0	0.86	93.01
Woodbridge	New Site	653.4	0.2	0.03	93.03
Brandon E	New Site	666.0	12.7	1.80	94.84
Beccles police stn	New Site	667.0	1.0	0.14	94.98
Bungay	New Site	667.5	0.4	0.06	95.04

Case 1	-	Yellow =	Original licence application N/A
Case 2	-	Purple + Yellow=	Modified Network 1 (N/A)
Case 3	-	Purple + Yellow +Orange=	Modified Network 2
Case 4	-	Purple + Yellow +Orange + green =	Modified network 3

Table 2-3. Summary of Coverage within Editorial Area for each case

Case	Indoor Households & (percentage coverage) <i>proportional 99% Time Interference Protection</i>	Mobile Coverage km & percentage coverage) <i>99% Locations & 99% Time Interference Protection</i>
1		
2		
3	288610 (91.02%)	637 (90.73%)
4	312782 (98.64%)	667.5 (95.04%)

Case 1	-	Yellow =	Original licence application N/A
Case 2	-	Purple + Yellow=	Modified Network 1 (N/A)
Case 3	-	Purple + Yellow +Orange=	Modified Network 2
Case 4	-	Purple + Yellow +Orange + green =	Modified network 3 (same as case 3)