



Code of Practice on Changes to Existing Transmission and Reception Arrangements

Publication date:

16 May 2007

Contents

Section		Page
1	Introduction	1
2	Regulatory principles	2
3	Types of work expected	3
4	Categories of viewers expected to be affected	4
5	Priorities to be adopted during digital switchover	5
6	Remedial actions	6
7	Information requirements	8

Section 1

Introduction

- 1.1 Digital switchover is scheduled to take place in the UK between 2008 and 2012 according to a regional timetable confirmed by the Government in September 2005. The digital switchover programme is expected to be preceded by an extensive programme of transmission infrastructure upgrading. It is possible that this upgrade programme and the regional adoption of digital switchover will cause some disruption to the normal reception of analogue and digital terrestrial television services by a relatively small number of viewers in the same or adjacent regions. In order to minimise this disruption Ofcom has produced this Code which provides licensees with guidance on the priorities that it expects them to adopt during the switchover transition programme.

Section 2

Regulatory principles

- 2.1 The digital replacement licence (DRL) holders (the providers of Channels 3, 4, 5 and Teletext services) and multiplex licensees are all required under the terms of their licences to implement digital switchover to a timetable set out in the appropriate licence.
- 2.2 Coverage obligations in the DRLs also require the holders to substantially match analogue coverage through digital terrestrial television (DTT) means. This requires that the public service broadcasters broadcast their digital services from all of the 1,154 current analogue transmitter sites at digital switchover. These obligations are also reflected in the frequency assignments and timetable inserted in the multiplex licences for Digital 3&4 and BBC Multiplex B.
- 2.3 These obligations, together with similar provisions covering the BBC's services carried on Multiplex 1 via obligations in its Charter and Agreement, mean that the three public service multiplexes are required to ensure that their collective coverage (3PSB) matches that of the analogue core coverage (this is taken to equate to 98.5% of UK households).
- 2.4 Ofcom has also recently stated that "it is not acceptable that any community of reasonable size currently covered by analogue transmissions should lose access to terrestrial television on switchover" (see Ofcom Statement "Switchover related changes to DTT Licences", December 2006).
- 2.5 Ofcom also confirmed in this Statement that the post switchover coverage of the three commercial multiplexes (who will adopt new high power frequency assignments at their 80 current transmission sites at switchover) should at least match that currently achieved (six multiplex core coverage which currently reaches 73% of UK households).
- 2.6 Hence, Ofcom's key concern through switchover is that analogue viewers who are normally covered by the existing analogue transmissions (analogue core coverage) and digital terrestrial television viewers within the six multiplex core coverage area only face minimal disruption to the reception of these services through the switchover transition.
- 2.7 Similarly, Ofcom is concerned that the DSO transmission infrastructure upgrade programme may have a similar impact on the operations and reception of broadcast radio services that are often located on masts close to the television infrastructure. Ofcom therefore requires that the multiplex operators give due consideration to the impact that the DSO programme may have on these radio services, and to use their reasonable endeavours to minimise any consequential impact upon listeners.

Section 3

Types of work expected

- 3.1 There are four categories of switchover related activity which are expected to affect viewers' reception of UK television services.
 - 3.1.1 Work being carried out by the transmission companies on the transmission infrastructure (including masts and antennas) in advance of digital switchover in a particular region. This work is expected to cause temporary disruption to viewers of the transmitter affected by the work as the transmission equipment is either switched off or operated at reduced power to enable the essential work to be carried out.
 - 3.1.2 Changes to the antenna radiation pattern at a particular transmitter which results in permanent changes to the normal reception of analogue or digital terrestrial television services by households within the coverage area of that transmitter or to the normal reception of services broadcast on other transmitters using the same frequencies.
 - 3.1.3 Implementation of digital switchover in an adjacent region.
 - 3.1.4 Implementation of digital switchover in a neighbouring country.

Section 4

Categories of viewers expected to be affected

- 4.1 It is expected that digital switchover will result in a small number of viewers having a lower quality reception or level of coverage compared to that which they currently enjoy. This degradation could either be temporary or permanent. In order to provide the most appropriate guidance on how the planning and implementation programme should be managed the following categories should be considered.
- 4.1.1 Category 1: viewers who would reasonably be expected to receive all four analogue terrestrial services from a UK transmitting station (analogue core coverage) who would not normally be expected to be covered by equivalent digital terrestrial television services (DTT three public service multiplexes core coverage).
 - 4.1.2 Category 2: viewers who would reasonably be expected to receive all four analogue services from a UK transmitting station who would normally be expected to be covered by equivalent digital terrestrial television services (DTT three public service multiplexes core coverage).
 - 4.1.3 Category 3: viewers who would reasonably be expected to be covered by all six digital terrestrial television multiplexes (six multiplex core coverage) from a UK transmitting station.

Section 5

Priorities to be adopted during digital switchover

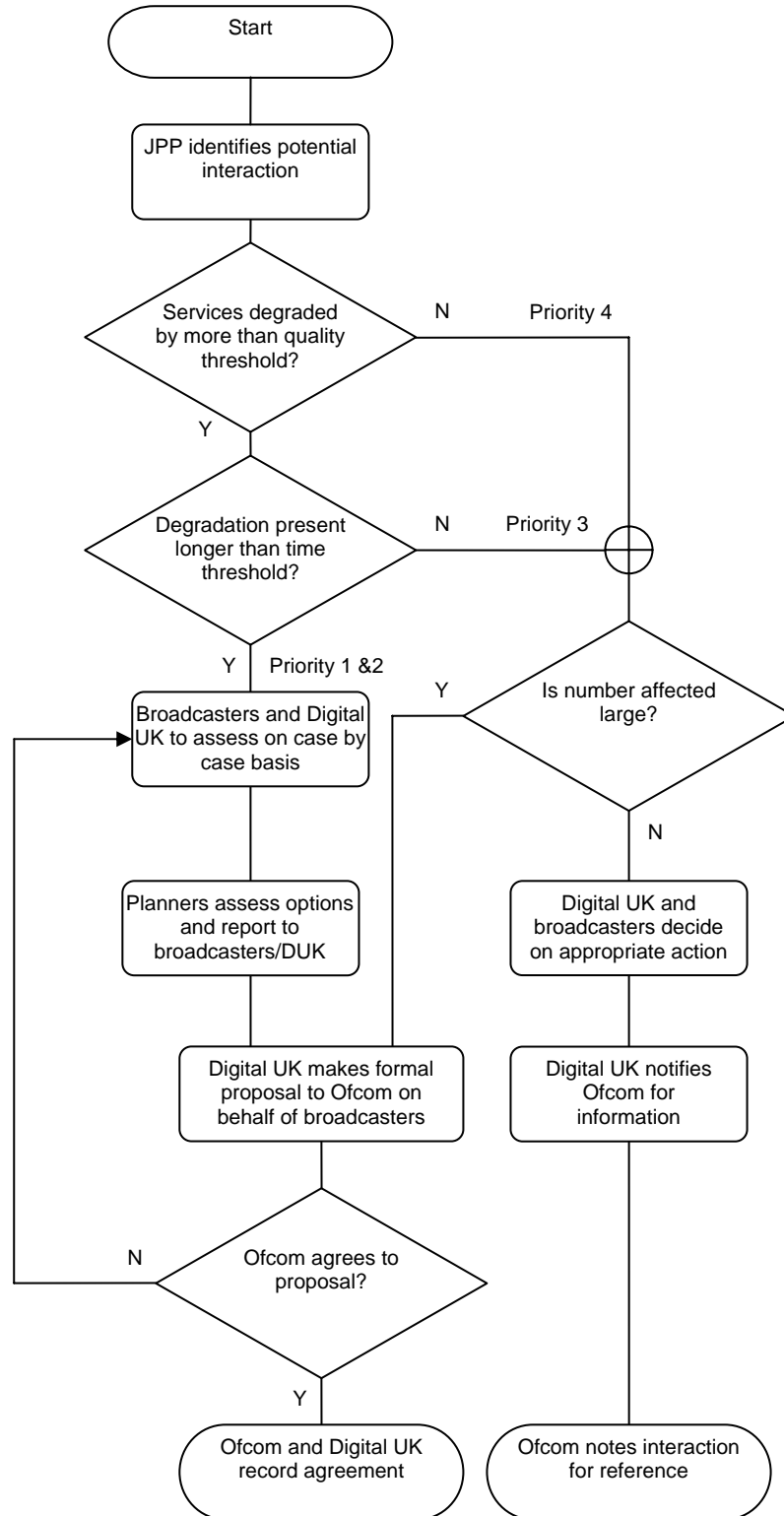
- 5.1 In planning transmission infrastructure work, antenna design or the implementation of digital switchover assignments the licensee should in general ensure that work is carried out with a view to minimising any degradation to the normal reception of existing analogue and digital terrestrial services. The licensee should specifically aim to ensure that any work does not result in the total loss of a service to viewers who are currently served by an existing service (as described in section 4 above) apart from short breaks in service that are a necessary part of the planned upgrade programme.
- 5.2 However, it is likely that due to the extensive nature of the work being carried out and the complex planning relationship between the assignments currently being used for the transmission of existing services and those being planned for the post switchover environment that some viewers will suffer a degradation in the quality of their current services or, in exceptional cases, the total loss of the current service. In such circumstances the following priorities should be taken into account when planning and implementing the digital switchover plan.
- 5.3 **Priority 1:** Any viewers who are predicted to lose the coverage of all of their current analogue services for a period of more than two weeks and who do not have access to an alternative service either via a different transmitter or via a digital terrestrial service from their current transmitter as described in 4.1.1 above.
- 5.4 **Priority 2:** Any viewers who are predicted to lose the coverage of one or more of their current analogue services or one or more of their current DTT multiplexes for a period of more than two weeks¹ who do not have access to an alternative service either via a different transmitter or via a digital terrestrial service from their current transmitter as described in 4.1.1 and 4.1.3 above.
- 5.5 **Priority 3:** Any viewers who are predicted to lose the coverage of all of their current analogue services for less than two weeks who do not have access to an alternative service either via a different transmitter or via a digital terrestrial service from their current transmitter.
- 5.6 **Priority 4:** Any viewers who are predicted to have their current level of service degraded (this can mean the quality of the analogue service is predicted to drop by more than one grade or a decrease in time availability of the service below current planning levels (95% for analogue and 99% for digital) but above a minimum level of 90% for analogue services and 95% for digital services).

¹ Ofcom will consider extending this time window on a case by case basis depending upon the number of services and the predicted severity of the loss.

Section 6

Remedial actions

- 6.1 The licensees should aim to use a variety of mitigation techniques to minimise the impact of switchover on UK viewers in accordance with the priorities discussed above. In general it is expected that these will focus on optimising the design of the antennas, use of parking channels where possible and adjusting the power of interfering services to minimise interference consistent with the licensees post switchover coverage obligations. If multiplex operators propose the use of parking channels, they should avoid the use of spectrum due to be cleared by switchover. Ofcom will, where appropriate, consider permitting the use of parking channels in the cleared spectrum if there is no alternative option that is viable, and if the costs (including the opportunity costs of the use of the cleared spectrum) are proportionate and acceptable.
- 6.2 For the avoidance of doubt, in the case of viewers who are predicted to lose one or more of their analogue services, it will be acceptable to advise these viewers to move to digital terrestrial television providing they are within the three public service broadcasting multiplexes' coverage area. In such cases it is important that viewers are given as much notice as possible of this early switchover date and that they are provided with the normal range of advice and support that they would have been entitled to at the normal switchover date.
- 6.3 It is expected that the viewers themselves will have to cover the normal costs of the necessary work that may be required to enable such a transition including the reorientation of their antenna to a new transmitter or relay.
- 6.4 In cases where viewers lose more than one analogue service for a significant period of time and digital terrestrial television or an alternative analogue service from another transmitter is not available the multiplex operators can propose to switch these viewers to an alternative digital platform providing they ensure that the capital costs of additional equipment and installation are covered by the multiplex operators.
- 6.5 In general Ofcom would expect the multiplex operators to work closely with the planners in the Joint Planning Project to identify and agree an appropriate way of minimising the disruption arising from the switchover programme on UK viewers. However, Ofcom would also expect to work closely with the broadcasters in determining an appropriate way of responding to these choices.
- 6.6 Therefore, it is proposed that for an initial period of at least six months (this to be reviewed at the end of the initial period) from the date of issue of this Code the multiplex operators should seek Ofcom's guidance, and if necessary agreement, to their proposals when the number of viewers affected is predicted to be large or it is predicted that the work would involve loss of services to Priority 1 or 2 viewers. In order to enable a speedy consideration of each specific case the broadcasters should prepare a paper which summarises the main planning issues involved and consideration of the options being proposed by the planners and concludes with a recommendation for action.
- 6.7 The following flow chart illustrates how it is expected the Code will operate.



Section 7

Information requirements

- 7.1 It will be the licensees' responsibility to ensure that all viewers that are predicted to be affected in the ways described above are provided with appropriate guidance and advice. This should be provided in a manner and timeframe as agreed between the multiplex operator and Ofcom.
- 7.2 In cases where a degradation of service is predicted, especially when this is due to the final implementation of switchover in that region, licensees should ensure that any affected viewers are provided with appropriate advice as to how they could make use of alternative digital platforms.
- 7.3 Licensees should ensure that any changes to the transmission infrastructure are notified to Ofcom, other broadcasters, Digital UK and other organisations as notified to the licensee by Ofcom. This notification should take the form of an email circular identifying the transmission sites being affected, the nature and duration of the work and any expected impact of the work on viewers.
- 7.4 Information concerning planned works and service disruptions is likely to be useful to a wide range of stakeholders. Licensees should ensure that works that are likely to result in disruption or changes to normal reception are publicised on a website or via teletext pages to inform viewers and installers. Where DSO related works are also likely to significantly affect radio services from a particular transmitter, this information should also be carried.