

REPORT ITU-R BS.2001

**ANCILLARY SERVICES FOR THE VISUALLY IMPAIRED AND HEARING IMPAIRED  
IN MULTI-CHANNEL SOUND SYSTEMS**

(Question ITU-R 84/10)

(1994)

**Introduction**

1. *Listeners with impaired hearing* have been found to require a dialogue to background music and effects ratio that is much higher than normal if they are to hear the dialogue with adequate intelligibility.

This has been the subject of study [BBC, 1991; CCIR, 1986-90] and it has been proposed that a special dialogue channel either without the addition of music and effects or with the music and effects at a greatly reduced level, is required.

While the subject requires further study, there is evidence to suggest that the hearing impaired viewer would favour a means of adjusting the level of background music and effects relative to the dialogue level to suit his impairment.

2. *Television viewers with impaired sight* benefit greatly if the television sound is augmented by an audio description of the events portrayed on the screen.

Skilled describers can provide a "word picture" of events and arrange that their commentary is supplementary to the television dialogue.

Many countries have already introduced audio description service to theatres and television drama and sports programmes.

For television, the use of trained describers in this way necessitates a special sound channel to carry the description which can then be added at the receiver to the normal sound channels for the benefit of visually impaired viewers.

It is proposed that a sound channel be allocated for audio descriptive services, and it is noted that a reduced bandwidth (7 kHz, or 3.4 kHz) would be adequate for the service.

**REFERENCES**

BBC [1991] A study of sound balances for the hard of hearing. BBC Research Report 1991/3

*CCIR Documents:*

[1986-90] : 10/314, 11/563 (Australia).

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