



Radiocommunication Bureau (BR)

Administrative Circular
CACE/747

14 August 2015

To Administrations of Member States of the ITU, Radiocommunication Sector Members and ITU-R Associates participating in the work of Radiocommunication Study Group 6

Subject: **Radiocommunication Study Group 6 (Broadcasting service)**

- **Proposed adoption of 2 draft new ITU-R Recommendations and 15 draft revised ITU-R Recommendations and their simultaneous approval by correspondence in accordance with § 10.3 of Resolution ITU-R 1-6 (Procedure for the simultaneous adoption and approval by correspondence)**

At the meeting of Radiocommunication Study Group 6, held on 24 July 2015, the Study Group decided to seek adoption of 2 draft new ITU-R Recommendations and 15 draft revised ITU-R Recommendations by correspondence (§ 10.2.3 of Resolution ITU-R 1-6) and further decided to apply the procedure for simultaneous adoption and approval by correspondence (PSAA), (§ 10.3 of Resolution ITU-R 1-6). The titles and summaries of the draft Recommendations are given in the Annex to this letter.

The consideration period shall extend for 2 months ending on 14 October 2015. If within this period no objections are received from Member States, the draft Recommendations shall be considered to be adopted by Study Group 6. Furthermore, since the PSAA procedure has been followed, the draft Recommendations shall also be considered as approved.

Any Member State who objects to the adoption of a draft Recommendation is requested to inform the Director and the Chairman of the Study Group of the reasons for the objection.

After the above-mentioned deadline, the results of the PSAA procedure will be announced in an Administrative Circular and the approved Recommendations will be published as soon as practicable (see <http://www.itu.int/pub/R-REC>).

Any ITU member organization aware of a patent held by itself or others which may fully or partly cover elements of the draft Recommendation(s) mentioned in this letter is requested to disclose such information to the Secretariat as soon as possible. The Common Patent Policy for ITU-T/ITU-R/ISO/IEC is available at <http://www.itu.int/en/ITU-T/ipr/Pages/policy.aspx>.



François Rancy
Director

Annex: Titles and summaries of the draft Recommendations

Documents: Documents [6/411\(Rev.1\)](#), [6/412\(Rev.2\)](#), [6/413\(Rev.1\)](#), [6/415\(Rev.1\)](#), [6/417\(Rev.2\)](#), [6/421\(Rev.1\)](#), [6/423\(Rev.1\)](#), [6/427\(Rev.1\)](#), [6/436\(Rev.1\)](#), [6/439\(Rev.1\)](#), [6/443\(Rev.1\)](#), [6/450\(Rev.1\)](#), [6/454\(Rev.1\)](#), [6/455\(Rev.1\)](#), [6/456\(Rev.2\)](#), [6/457\(Rev.1\)](#), [6/458\(Rev.1\)](#)

These documents are available in electronic format at: <http://www.itu.int/md/R12-sg06-c/>

Distribution:

- Administrations of Member States of the ITU and Radiocommunication Sector Members participating in the work of Radiocommunication Study Group 6
- ITU-R Associates participating in the work of Radiocommunication Study Group 6
- Chairmen and Vice-Chairmen of Radiocommunication Study Groups and the Special Committee on Regulatory/Procedural Matters
- Chairman and Vice-Chairmen of the Conference Preparatory Meeting
- Members of the Radio Regulations Board
- Secretary-General of the ITU, Director of the Telecommunication Standardization Bureau, Director of the Telecommunication Development Bureau

Annex

Titles and summaries of the draft Recommendations

Draft new Recommendation ITU-R BT.[709TO2020]

Doc. 6/413(Rev.1)

Colour conversion from Recommendation ITU-R BT.709 to Recommendation ITU-R BT.2020

High quality colour conversion from Recommendation ITU-R [BT.709](#) to Recommendation ITU-R [BT.2020](#) requires that the colours of the Recommendation ITU-R BT.709 programme content must remain unchanged. In addition, to ensure consistency, the mapping method used must be mathematically definable.

The proposed Draft New Recommendation ITU-R BT.[709to2020] meets these requirements and addresses a method of colour conversion from Recommendation ITU-R BT.709 to Recommendation ITU-R BT.2020 for use when HDTV programme content is included within UHDTV programmes. Descriptions of the conversion in the case of the non-constant luminance signal format and the conversion in the case of the constant luminance signal format for UHDTV are included.

Two sets of conversion equations are specified. One set is based on an opto-electronic transfer function (OETF) and its inverse. The other set is based on an electro-optical transfer function (EOTF) and its inverse.

Draft new Recommendation ITU-R BS.[BW64]

Doc. 6/450(Rev.1)

Long-form file format for the international exchange of audio programme materials with metadata

This recommendation contains the specification of the BW64 (Broadcast Wave 64 Bit) audio file format including the new chunks <ds64>, <axml> and <chna> which enable the file to carry large multichannel files and metadata including the audio definition model specified in Recommendation ITU-R BS.2076.

Draft revision Recommendation ITU-R BT.2020-1

Doc. 6/411(Rev.1)

Parameter values for ultra-high definition television systems for production and international programme exchange

The revisions add the values of 100 Hz and 120/1.001 Hz to the frame rate table (Table 2) with a reference to an updated Section 3.2.4.4 of Report ITU-R [BT.2246](#).

Draft revision Recommendation ITU-R BT.1848-0

Doc. 6/412(Rev.2)

Safe areas of wide screen 16:9 aspect ratio digital productions

The revisions add digital productions action safe margins and graphics safe margins for 3 840 × 2 160 and 7 680 × 4 320 systems of Recommendation ITU-R BT.2020 Parameter values for ultra-high definition television systems for production and international programme exchange.

In addition, as a consequence of the suppression in February 2015 of Recommendation ITU-R BT.1358 Studio parameters of 625 and 525 line progressive television systems, Appendix 2 to Annex 1 “Safe areas for television programmes made in the 625-line progressive scan 16:9 wide-screen format: Shoot-to-protect the 16:9 full image” is no longer required and is deleted.

Draft revision Recommendation ITU-R BS.1738-0

Doc. 6/415(Rev.1)

Identification and ordering of 4 and 8 track audio channels carried on international contribution circuits

The revisions add an additional 8 channel track allocation, “Production Scenario 6”, to the existing set of 8 channel allocations. This scenario involves a production using both a stereo complete mix on channels 1 & 2, and a 5.1 surround sound complete mix on channels 3 to 8.

A note is added to the Annex in order to remove an ambiguity; the note explains the intended meaning of the names of channels, and clarifies that a certain meaning is not implied.

Algorithms to measure audio programme loudness and true-peak audio level

The revisions add new Annex 3 that specifies the extended loudness measurement algorithm for channel-based advanced sound systems. The original algorithm in Annex 1 is completely maintained so there is no effect on current practice for measurement of loudness. Annex 2 is updated to provide improved clarity for the true-peak metering algorithm.

Subjective assessment of the quality of audio in large screen digital imagery applications intended for presentation in a theatrical environment

The revisions include change in text to the "*considering (e)*" to include use of advanced sound systems as defined in Recommendation ITU-R BS.2051, an additional text added to section 3b "Provisions related to the assessment of advanced sound system program audio" that describes the need for additional review and descriptive reporting when the recommendation is used with advanced sound system speaker layouts that go beyond those specified in Recommendation ITU-R BS.775, description and inclusion of additional feature attributes to be considered in the assessment of system quality and reference to Recommendation ITU-R BS.1116 to identify all necessary contents for inclusion in the test report when the system being assessed is an advanced system speaker layout that goes beyond those specified in Recommendation ITU-R BS.775.

Method for the subjective assessment of intermediate quality level of audio systems

The revisions is to allow the use of the Recommendations ITU-R BS.1534 with advanced sound systems as described in Recommendation ITU-R BS.2051. The revisions include a change to the "*considering (k)*" to include use of advanced sound systems as defined in Recommendation ITU-R BS.2051, an additional text was added to Section 7.2 "Loudspeaker configuration" that describes the need for additional review and descriptive reporting when the recommendation is used with advanced sound system speaker layouts. A modification to the room calibration was added for use with advanced sound system speaker layouts. A description and inclusion of additional feature attributes to be considered in the assessment of system quality was added in section 6.4.

Draft revision Recommendation ITU-R BS.1660-0

Doc. 6/427(Rev.1)

Technical basis for planning of terrestrial digital sound broadcasting in the VHF band

The revisions include an update of the out-of-band mask for DRM+ in line with the out-of-band mask for the 100 kHz bandwidth variant of RAVIS in Recommendation ITU-R BS.1660 with the impact on adjacent aeronautical services unchanged for equal powers.

Draft revision Recommendation ITU-R BO./BT.1774-0

Doc. 6/436(Rev.1)

Use of satellite and terrestrial broadcast infrastructures for public warning, disaster mitigation and relief

The revisions include a revised Scope and Noting, to draw attention to systems used for disaster mitigation and relief contained in Report ITU-R BT.2299 "Broadcasting for public warning, disaster mitigation and relief".

The Annexes in this Recommendation are also revised, so that they only contain technical aspects of public warning systems for Broadcasting. The sections describing examples of these systems are deleted and may now be found in section 5 of Report ITU-R BT.2299.

Draft revision Recommendation ITU-R BT.2052-0

Doc. 6/439(Rev.1)

Planning criteria for terrestrial multimedia broadcasting for mobile reception using handheld receivers in VHF/UHF bands

The revisions include the protection ratios of multimedia system A at co-channel and adjacent channels under Gaussian, Ricean, Rayleigh and TU6 channels as well as the planning criteria for multimedia system T2 (T2-Lite profile of DVB-T2) in the VHF/UHF bands.

Draft revision Recommendation ITU-R BT.1893-0

Doc. 6/443(Rev.1)

Assessment methods of impairment caused to digital television reception by wind turbines

The revisions include:

- acknowledgement of the methods developed up to 2010 which some administrations have applied where earlier studies and methods of assessment included television signals in the VHF band;

- earlier studies which considered the impact of forward and back scattering by wind turbine blades and the wind turbine pylon of analog and digital television signals in the VHF and UHF bands. Where consideration was also given in these studies to the modulation characteristics of the digital television signals and the arising MER performance of the television receivers;
- more recent studies focused on the UHF band;
- assessment of the effect of multiple wind turbines (called wind farms) to TV reception, and
- development of new methods of assessment of impairment to digital television reception by wind turbines where the proposed revisions to Recommendation ITU-R BT.1893 are based on methods to assess ITU-R DTTB System B.

Draft revision Recommendation ITU-R BT.2077-0

Doc. 6/454(Rev.1)

Real-time serial digital interfaces for UHDTV signals

The revisions add specifications for single mode fibre transmission using dense wavelength division multiplex (DWDM) to Part 2. This addition requires a subsequent change to Table 1. The proposed revision complements rather than changes the agreement reached in the current version and urgently needs to be included in the Recommendation. This revision does not impact any legacy implementations.

Draft revision Recommendation ITU-R BT.1365-1

Doc. 6/455(Rev.1)

24-bit digital audio format as ancillary data signals in HDTV and UHDTV serial interfaces

The revisions cover the extended Audio control packet and the extended Audio data capacity offer in HDTV and UHDTV interface documents. In addition some corrections were made to the text. Legacy implementations of Recommendation ITU-R BT.1365 are not impacted by any changes that have been made.

Draft revision Recommendation ITU-R BT.1364-3

Doc. 6/456(Rev.2)

Format of ancillary data signals carried in digital component studio interfaces

The revisions update the registry table and values that are permitted and defined by this Recommendation. Table values also include the extended values defined by Recommendation ITU-R BT.2077. Legacy implementations are not impacted by these proposed changes.

**Serial digital fibre transmission system for signals conforming to
Recommendations ITU-R BT.656, ITU-R BT.799,
ITU-R BT.1120 and ITU-R BT.2077 (Part 3)**

The revisions update the normative references (section 2) and include appropriate references to Recommendations ITU-R 2077. In addition a new appendix was added to explain Optical Multiplexing and link budget. The proposed changes do not impact current implementations.

Audio coding for digital broadcasting

The revisions add new Appendix 6 that specifies the extended channel configurations for MPEG coding. The list of channel configurations was published as the Code Independent Coding Points, ISO/IEC23001-8:2013/Amd.1:2015. In addition, in the “*recommends*” section, the reference to the latest version of ETSI TS 102 366 was updated.
