

Broadcasting System Committee (3rd Meeting) Summary of Minutes
Telecommunications Technology Sub-Council, Telecommunications Council

1. Date and time

Thursday, December 7, 2006, 15:00

2. Location

Special Meeting Room 4, 5th Floor, MIC

3. Agenda

- (1) Confirmation of the summary of minutes of the previous meeting
- (2) Draft committee report
- (3) Others

4. Attendees (honorifics omitted; in random order)

Ito (Committee Chairperson; Tokyo University of Science), Tsuzuku (Vice Committee Chairperson; Meijo University), Aizawa (National Institute of Informatics), Ikegami (Meiji University), Katto (Waseda University), Sato (Tokyo University of Technology), Takada (Graduate School, Tokyo Institute of Technology), Kobayashi (Association of Radio Industries and Businesses), Noda (Japan Cable Laboratories), Ota (Observer; Working Group for Terrestrial Digital Broadcasting Relay Stations), and Moriyama (Observer: Working Group for Terrestrial Digital Broadcasting Relay Stations)

[Secretariat] Okubo, Fuseda, Fukushima, Usui, Endo, and Takemura (Broadcasting Technology Division, MIC)

5. Documents Distributed

Document 3-1: Broadcasting System Committee (2nd Meeting) Summary of Minutes (Draft)

Document 3-2: Technical conditions on the terrestrial digital broadcasting relay stations
<Report>

Document 3-3: Draft Report from Broadcasting System Committee, Telecommunications Technology Sub-Council, Telecommunications Council

6. Summary of the Meeting

The secretariat explained that Mr. Ota and Mr. Moriyama from the Working Group for Terrestrial Digital Broadcasting Relay Stations were attending the meeting as observers. After ensuring that every participant received the documents to be distributed, the agenda items were discussed as follows:

(1) Confirmation of the summary of minutes of the previous meeting

The Broadcasting System Committee (2nd Meeting) Summary of Minutes (Draft) was approved.

(2) Draft committee report

Member Kobayashi, who serves as the head of the Working Group for Terrestrial Digital Broadcasting Relay Stations, explained (1) the issues pointed out in the last meeting, (2) the issues placed on hold at the working group's last meeting, (3) the modified descriptions in the draft interim report, and (4) the overall report, based on Documents 3-2 and 3-3. A question-and-answer session was provided as follows:

a. Description of the frequency tolerance for SFN (Single Frequency Network) operation

- Vice Chairperson Tsuzuku: Is it appropriate to specify 10 Hz as the frequency tolerance for SFN operation?

→ Chairperson Ito: The report specifies that the frequency tolerance should not exceed 10 Hz in terms of transmission between any relay stations. The details are explained on page 16 of Document 3-3. I find no problem with it.

→ Member Ikegami: I agree. It is described as "relative frequency tolerance between stations."

- Vice Chairperson Tsuzuku: Conventionally, the Rules for Regulating Radio Equipment specifies the frequency tolerance of a radio station.

- Chairperson Ito: We should modify the wording, for example, by adding that it is relative deviation on pages 2 and 6 in Document 3-2.

b. Description of the oscillator performance

- Vice Chairperson Tsuzuku: If we use the word, "accuracy," the value should be "99.99...%" instead of "10^{-xx}," if we stick to the expression of "10^{-xx}," we should use "error rate" or "deviation."

- Chairperson Ito: When the rubidium oscillator accuracy is 10⁻¹⁰, I think the converted deviation

is about 0.1 Hz.

→ Secretariat: We will correct the value.

c. Description of the figures in “4-3: Reduced Value of Spectrum Mask”

- Vice Chairperson Tsuzuku: People may think that there is consistency in the use of the full line, dotted line and dashed-dotted line between Figures 3 and 4. The use of lines should be modified to avoid confusion.

→ Secretariat: We will change the lines.

d. Description of the width (length) of the broadcasting area in “1.2: Extremely Low-Power Stations”

- Member Takada: It says “the width (length) of the broadcasting area should be doubled.” Which broadcasting area is the basis for the measurement?

→ Member Kobayashi: The broadcasting area of existing extremely low-power stations.

e. Meaning of the standard value used in the draft amendment

- Member Katto: The document seems to imply that the “image quality” will become neither worse nor better. Is it correct to understand that the image quality will not become worse?

→ Member Kobayashi: Although we have not conducted a strict assessment of image quality, we have added (14) interference/multipath C/N and (15) receiver’s equivalent C/N degradation to the circuit design, as you can see in Figure 2-2, titled “Required C/N for receivers upon relaying broadcast waves,” in Reference 3 of Document 3-3. We allow interference within these margins. Furthermore, the relay stations under discussion require licenses, and licenses will not be granted if, during the assessment of a license application, it is found that the circuit design does not satisfy the requirements. Inevitably, applicants have to take necessary measures. These will help to ensure the image quality.

- Member Katto: In that case, I wonder if the specifications before the review are higher than the required level.

→ Member Kobayashi: The past standards were established for parent stations. This draft amendment stipulates appropriate standards for relay stations.

f. Description of the vertical axis of Figure 3 in “4.3: Reduced Value of Spectrum Mask”

- Member Takada: In related ITU recommendations (revised version), the vertical axis of Figure 3 refers to the power level, not the attenuation.
- Member Kobayashi: The May 1999 Telecommunications Technology Sub-Council Report, “Technical requirements for terrestrial digital television broadcasting system”, used “relative level,” but it was changed to “attenuation” based on deliberations at the Spurious Committee of the Telecommunications Technology Sub-Council in November 2004. I think we can take this occasion to change the existing provision to a logical description.
- Chairperson Ito: That this discussion is conducted should be mentioned in the report.

g. Proviso in “4.1: Current Spectrum Mask”

- Chairperson Ito: What does the proviso of “4.1: Existing Spectrum Mask” mean?
- Member Kobayashi: Amplification with MCPA can use the same attenuation as that of the carrier frequency if successive multiple frequency channels carry out the same amplification.
- Vice Chairperson Tsuzuku: In that case, does it allow any level of spurious emissions between adjacent channels?
- Observer Moriyama: The description is quoted from Figure 4-8-8 in the Rules for Regulating Radio Equipment. If spurious emissions between adjacent channels exceed the rated value of the mask, broadcasting becomes impossible. Therefore, such case will not happen in reality.

Following the above discussion, the secretariat announced that the draft report would be modified based on the above comments and delivered via e-mail, and that the public comment procedure will be promptly conducted in regard to the modified draft.

End