

Summary of Meeting of the Radio Regulatory Council (No. 909)

1. Date and time

September 13, 2006 (Wednesday)

15:10 to 17:40

2. Location

Meeting Room of MIC (Ministry of Internal Affairs and Communications)

(Meeting Room No. 1002 on the 10th floor)

3. Attendees (Honorifics omitted)

(1) Members of the Radio Regulatory Council

Mitsutoshi Hatori (Chairperson), Takeo Inokuchi (Vice-Chairperson), Kashiko Kodate, and

Hatsuko Ukikawa

(2) Hearing Examiner of the Radio Regulatory Council

Shuichi Nishimoto

(3) Secretary

Ikko Mitsui (Deputy Director of the General Affairs Division, Telecommunications Bureau)

(4) MIC (Ministry of Internal Affairs and Communications)

Mori (Director-General of the Telecommunications Bureau), Kawauchi (Director-General of the

Radio Department), Suzuki (Director-General of the Information and Communications Policy

Bureau), Nakata (Deputy Director-General of the Minister's Secretariat), and others

4. Minutes of the Meeting

(1) Regarding the draft ministerial ordinance that partially amends the Regulations for Enforcement of the Radio Law, the Regulations for Operating Radio Stations, and the Ordinance Regulating Radio Equipment, as well as the proposed change to a part of the Frequency Assignment Plan

(Consultation No. 17 and No. 18 of July 12, 2006)

Having deliberated the draft ministerial ordinance in the title that deals with the introduction of buoyant S-VDR and the addition of frequencies to be used by satellite EPIRB, etc. as well as the proposed change to a part of the Frequency Assignment Plan, based on the written opinions and protocol submitted by the hearing examiner who presided over procedures for inviting public comments (refer to the post-hearing opinion from the 414th Radio Regulatory Council's written opinions), the Council concluded that the draft was appropriate and returned an affirmative reply.

(2) Regarding the draft ministerial ordinance that partially amends the Ordinance Regulating Radio Equipment (Consultation No. 19 of July 12, 2006)

Having deliberated the draft ministerial ordinance that partially amends the Ordinance Regulating Radio Equipment to stipulate the technical standards for power line communication facilities using the frequency band of 2 to 30 MHz, based on the written opinions and protocol submitted by the hearing examiner who presided over procedures for inviting public comments (refer to the post-hearing opinion from the 415th Radio Regulatory Council's written opinions), the Council concluded that the draft was appropriate and returned an affirmative reply, adding the following three items to which MIC should give particular attention.

(i) When approving the installation of high-speed power line communication facilities, if MIC

believes it necessary to confirm that the use of the frequency or frequencies concerning this application will not interfere with other communications, MIC must carefully examine the application by requesting the applicant to submit relevant materials or provide necessary explanations, or by conducting a survey at the site and taking any other necessary actions.

(ii) MIC must disseminate the fact that those who are granted approval for the installation of facilities must take actions based on Article 64-2 of the Ordinance Regulating Radio Equipment to applicants for the approval and make efforts to prepare a system so that MIC may promptly respond to irregularities, such as crosstalk, if they should occur.

(iii) As indicated in a report from the Telecommunications Council, MIC must keep track of how the approved facility is working with other radio use equipment and, if necessary, MIC must review the technical standards for power line communication facilities using the frequencies of 2 to 30 MHz. In addition, MIC must review these technical standards whenever necessity arises if the Radio Regulations or CISPR standards are developed concerning radio spectrum leaked from high-speed power line communication facilities.

(3) Regarding the draft ministerial ordinance that partially amends the Regulations for Enforcement of the Radio Law and the Ordinance Regulating Radio Equipment (Consultation No. 23)

As this matter relates to Consultation No. 24, MIC explained it in conjunction with Consultation No. 24.

(4) Regarding the proposed change to a part of the Frequency Assignment Plan (Consultation No. 24)

As this matter relates to Consultation No. 23, MIC explained it in conjunction with Consultation No. 23.

Note that as Article 99-12 (1) of the Radio Law required that MIC hear public comments on

Consultation No. 23 and MIC concluded that it was appropriate to ask the opinions of the Council about Consultation No. 24 in conjunction with Consultation No. 23. MIC, therefore, decided to subject them to the public hearing process as one set, and appointed Shuichi Nishimoto as the hearing examiner who would preside over procedures for the public hearing.

○ Explanation by MIC

As active tag systems using the 433 MHz band are extensively used to electronically manage information such as the opening and closing, tracking, and position-tracking of containers in the international logistics field, the international standards for them have been established to improve the efficiency and security of international logistics management and foreign countries are streamlining the laws and regulations and mechanisms for them and attempting to put them into practical usage.

In Japan, the need for tag systems is also being heightened from the viewpoint of securing smooth international logistics and a competitive edge in the international logistics field. Based on these environments, MIC asked the Telecommunications Council to deliberate on the technical conditions on the 433 MHz-band active tag systems and received a partial report on it on July 20, 2006. This intends to attempt to streamline the relevant provisions necessary to introduce the 433 MHz-band active tag systems based on the report.

The tag systems are expected to mainly be used in locations such as ports and harbors, airports, or factories, warehouses, and distribution centers. Another expected use scenario is that a tag system receives trigger information from an interrogator or a device that sends information to start tag systems and sends information such as tracking information and the opening and closing of a container.

Next, as the frequency band of the 433 MHz band for use with tag systems is extensively used by other services, such as amateur radio services in Japan, the power radiated from interrogators must be kept to the minimum necessary so that amateur stations may operate normally following the introduction of such tag systems. In addition, MIC intends to impose conditions whereby the use of active tag systems is limited to international transportation, and at the same time the location where they are to be used is restricted to ports, harbors, airports, etc.

The overview of this ministerial ordinance amendment is as follows: First, MIC will add a frequency of 433.92 MHz, which the active tag systems will use, to the Regulations for Enforcement of the Radio Law as the frequency band for use with specified small-power radio stations requiring no license. In addition, MIC will define the limit on secondary emissions radiated from receiving equipment, permissible values for unwanted emission intensity from transmitting equipment, etc. in the Ordinance Regulating Radio Equipment. Note that MIC intends to define the usage, antenna power, etc. of interrogators and active tags in a Notice or Notices. Concerning the Frequency Assignment Plan, a mobile service will be added to the frequency band of 432 to 438 MHz, the purpose of radio stations will be specified to be for small-power services (data transmission for international transportation), and a frequency of 433.92 MHz will be newly assigned to them. As the frequency band of 432 to 438 MHz is not allotted to any mobile services on an international basis, the mobile services on this frequency band shall be defined as secondary services. Next, MIC will add conditions that these active tag systems must not cause harmful interference to other radio stations or receiving equipment, and they must not request any protective measures against any harmful interference from other radio stations.

(5) Regarding the draft ministerial ordinance that partially amends the ministerial ordinance concerning the survey, etc. of actual radio spectrum usage

(Consultation No. 25)

MIC explained, as follows, the draft ministerial ordinance that partially amends the ministerial ordinance concerning the survey, etc. of actual radio spectrum usage to improve the efficiency of the survey of actual radio spectrum usage that MIC conducts every year. Note that as Article 99-12 (1) of the Radio Law required that MIC hear public comments on this matter, MIC appointed Shuichi Nishimoto as the examiner who would preside over procedures for inviting public comments.

○ Explanation by MIC

MIC divides the allocatable frequencies into three frequency bands, on each of which MIC conducts a survey on a three-year cycle. As this survey has been conducted since the fiscal 2003, this fiscal year enters the second cycle of the survey. As MIC regards the survey as very important in considering measures such as the reallocation of the radio spectrum to address new demand, MIC intends to continue to give it the status of an important task and tackle it as such in future.

MIC conducts the current survey on each type of radio communications, such as fixed services and mobile services, which means that MIC must prepare six different kinds of questionnaire sheets, and a licensee who is offering multiple radio communication services receives more than one kind of questionnaire sheet and must complete one sheet for each type of radio communication service. To improve this situation, MIC plans to enable the survey to be conducted with one kind of questionnaire sheet by limiting the survey agenda in each questionnaire to what is directly relevant to the evaluation process that will be conducted after the survey, and by summarizing the agenda into items common to different types of radio

communications.

The current ministerial ordinance stipulates the radio systems to be surveyed. MIC, however, intends to survey all radio systems, in principle, in future. This is because MIC must consider when they can make changes to a relevant Frequency Assignment Plan towards discontinuing some radio systems that, for example, are little needed, even when the ordinance classifies them as systems not requiring a survey. If MIC decides to conduct the survey on radio systems that have been excluded from such surveys, however, MIC must consider the necessity of such surveys to ensure that licensees are not forced to bear excessive loads. Reviewing the current ministerial ordinance, as explained above, will give MIC ample time for the task to evaluate the effective use of the radio spectrum. Consequently, MIC will be able to disclose more understandable results of the assessment to the public than ever before.

(6) Regarding the blanket license for specified radio stations that belong to Vodafone K.K.

(Consultation No. 26)

MIC explained the application from Vodafone K.K. (hereinafter, "Vodafone") for approval for the blanket license for terminals that support HSDPA (High-Speed Downlink Packet Access) technology as follows. The Council deliberated this matter and replied indicating that the Council regarded it as acceptable.

○ Explanation by MIC

Vodafone currently provides cell phone services using a W-CDMA scheme, a third generation technology, and the company now plans to introduce a new type of terminal powered by the HSDPA method on top of the existing W-CDMA method to improve data transmission rates. MIC asked the Radio Regulatory Council to deliberate on an application from NTT DoCoMo for the blanket license for HSDPA-enabled terminals in July 2006 and recently received the application from Vodafone, following that of NTT DoCoMo. In the application, the company

requested to start usage of similar terminals on October 1, 2006.

If HSDPA is installed to a terminal on top of W-CDMA, the terminal will be able to use a more advanced modulation method in response to the status of how the terminal is receiving radio waves, and, consequently, send more signals. The use of this technology makes the transmission rate from a base station to the terminals approximately 10 times faster than the current and thus new services, such as downloading songs and fast video delivery services, are expected to be provided.

As a result of examining the content of the application explained above in line with the examination items stipulated in Article 27-4 of the Radio Law concerning blanket licenses, MIC concluded that they would grant the blanket license to the company as requested in the application, because the application met all the relevant provisions in the Radio Law.

(7) Regarding the draft ministerial ordinance that amends each part of the Regulations for Enforcement of the Broadcast Law, the Ordinance Regulating Radio Equipment, the Essential Standards for Establishing Broadcasting Stations, the Regulations for Enforcement of the Law Concerning Broadcast on Telecommunications Service, and the Ordinance for Standard Transmission Systems for Digital Broadcasting among Standard Television Broadcasting, Etc. (Consultation No. 27)

MIC explained the draft amendment to relevant ministerial ordinances for adding an advanced narrowband transmission method to CS digital broadcasting.

Note that as Article 99-12 (1) of the Radio Law, Article 53-11 (1) of the Broadcast Law, and Article 19-1 of the Law Concerning Broadcast on Telecommunications Services, require that MIC hear public comments on this matter, MIC appointed Shuichi Nishimoto as the hearing

examiner who would preside over procedures for inviting public comments.

○ Explanation by MIC

This amendment concerns the advancement of satellite digital broadcasting, or so-called CS digital broadcasting, using frequencies of more than 12.2 to 12.75 GHz.

CS digital broadcasting consists of narrowband CS digital broadcasting, whose transmission frequency bandwidth is 27 MHz, and broadband CS digital broadcasting for transponders that have a transmission frequency bandwidth of 34.5 MHz. This amendment intends to add new standards to the narrowband CS digital broadcasting. The narrowband CS digital broadcasting provides TV broadcasts with standard definition (SD). The amendment intends to establish new technical standards for the introduction of new methods to improve the image quality of broadcasts and promote conversion to HDTV. The Telecommunications Council started to deliberate on the technical conditions on enhancing the CS digital broadcasting method from October 2005 and made a report on the matter on July 20, 2006. In response to this report, MIC intends to introduce these technical standards.

The technologies introduced this time are two systems, namely, the transmission route encoding and video encoding systems. The transmission efficiency of the transmission route encoding system can be expected to be improved by approximately 30% by changing the current DVB-S method to a new DVB-S.2 method. The MPEG-2 method is being used for the video encoding system. If the new video encoding system, called H.264, is introduced, the compression efficiency will be approximately doubled. H.264 has already been standardized by organizations such as ITU Telecommunication Sector (ITU-T). DVB-S.2 has been already put to practical use as one of the European standards and has entered the final stage of international standardization in the International Telecommunication Union (ITU). If this technology is implemented, the new method will enable broadcasts to be multiplexed and transmitted with approximately 3

channels, whereas the current MPEG-2 method only can transmit 1 channel of high vision data for one repeater.

To introduce this technology, MIC will first define the advanced narrowband transmission system by adding a paragraph titled “Advanced Narrowband Transmission System” to the ministerial ordinance for the Standard Television Broadcasting as one of the main amendments. The standards for approving broadcast programming operations, etc. includes a section that defines the number of transponders to be occupied by using the transmission capacity used by program supplying broadcasters. After adding the paragraph mentioned above, MIC’s next main amendment will be to add the value to be used to calculate the number of transponders.

For the technical standards, eight-phase modulation will be introduced as the modulation type. The transmission rate will increase up to 69.718 Mbps with the introduction of the transmission system explained before. Filters with a roll-off rate of 0.2, or steep filters, will be introduced. In addition, MIC is considering amendments that adopt transmission signals whose error correcting code is a combination of LDPC (Low Density Parity Check) code and BCH (Bose, Ray-Chaudhuri, Hocquenghem) code and add H.264 on top of MPEG-2 as the video encoding system.

Finally, these amendments are scheduled to be promulgated and enforced at the end of January 2007.

(8) Regarding the proposed change to a part of the Plan for the Available Frequencies Allocated for Broadcasting

(Consultation No. 28)

MIC explained the proposed change to a part of the Plan for the Available Frequencies

Allocated for Broadcasting for broadcasting to start the operation of satellite station JCSAT-3A as follows. The Council deliberated this matter and replied indicating that the Council regarded it as acceptable.

○ Explanation by MIC

The satellites that JSAT Corporation have launched for use with CS digital broadcasting are JCSAT-3 at 128 degrees east longitude, JCSAT-4A at 124 degrees east longitude, and JCSAT-4 as a standby satellite on the same orbit. Recently, the company launched JCSAT-3A as a successor to JCSAT-3 in August 2006, because JCSAT-3, which was launched in 1995, was reaching the end of its operating life. MIC intends to take the required actions to enable the JCSAT-3A to send frequencies in 2007. MIC intends to change the Plan for the Available Frequencies Allocated for Broadcasting by adding JCSAT-3A as a transmitting location that can be used for broadcasting and specifying the current frequency that JCSAT-3 is using for use by JCSAT-3A. In conjunction with the changes explained above, to prepare the standby satellite when operating JCSAT-3A, MIC will specify the status of the standby satellite.

MIC intends to promptly change the Plan for the Available Frequencies Allocated for Broadcasting after receiving a report on this matter, and issue the changed plan in an official gazette.

(9) Regarding authorization for the Japan Broadcasting Corporation to cancel an agreement pertaining to international relay broadcasting

(Consultation No. 29)

MIC explained the authorization for the Japan Broadcasting Corporation (NHK) to cancel the agreement pertaining to international relay broadcasting concluded with Radio France Internationale (RFI) and provided a questions-and-answers session as follows. The Council deliberated this matter and replied indicating that the Council regarded it as acceptable.

a. Explanation by MIC

NHK is now broadcasting programs everyday to the whole world in 22 languages for a total of 65 hours per day through international radio broadcasting. The corporation is broadcasting programs from the Yamata transmitting station in Ibaraki, but it is difficult to prepare the receiving environments overseas using only this station. For this reason, NHK is attempting to improve receiving environments overseas by setting up relay stations overseas.

There are two operational modes for these relay stations. In one mode, NHK exchanges its own station with one owned by an overseas broadcaster, and both broadcasters mutually deliver the programs of the other broadcaster by using the other broadcaster's station without requesting a fee. The other mode is where NHK rents a transmitting station overseas to deliver its own programs by paying a fee.

Currently, RFI in France and NHK have concluded an agreement pertaining to the former mode of facility sharing. RFI delivers the programs of NHK's Radio Japan from the Montsinéry transmitting station in Guiana, and in turn NHK transmits RFI programs from the NHK Yamata transmitting station to South East Asian countries and the Asian continent. NHK now wishes to discontinue this agreement.

The background information on this discontinuation of the agreement is that RFI informed NHK of agreement cancellation on March 7, 2006, based on a clause in the agreement stating that either party can cancel the agreement by providing relevant notification. After such notification, both parties undertook negotiations and NHK confirmed that RFI had no intention of continuing the agreement.

NHK delivers 7.5 hours of programs to Central and South America from Guiana based on the

agreement, and 4.5 hours of programs with the same contents from Japan. As NHK thinks that the corporation must maintain the reception environment in the Central and South America regions, NHK proposes that the corporation continues to transmit 4.5 hours of programs from the Yamata transmitting station in Japan and deliver 3 hours of programs from Guiana, reducing transmission hours from the current 7.5 hours to 3. For the remaining 4.5 hours of programs, NHK will send the same programs from the Yamata transmitting station in Japan. NHK wishes to continue to deliver its unique 3 hours of programs from Guiana with the facilities that NHK will rent after the cancellation of the agreement. As explained so far, NHK can maintain its unique programs aired from Guiana. As NHK can continue to deliver the rest of the common programs from Japan, this means NHK's request will not require the Minister of Internal Affairs and Communications to order NHK to deliver international programs, MIC wishes to conclude that it is appropriate for NHK to cancel the agreement.

b. Main contents of the Q&A session

- The following question was asked:

Has MIC gathered any background information on the situation where RFI intends to shrink shortwave broadcasting services for Asia?

MIC answered as follows:

Radio shortwave broadcasting played a major role in international broadcasting. New technologies, such as video international broadcasting using satellites and Internet delivery, have emerged and there is a move to review international broadcasting by considering the most effective delivery method for each region. MIC hears that RFI recently reached a decision to change their plans in this way as part of a cost reduction review of their entire international broadcasting.

- The following question was asked:

Does MIC mean that similar events are likely to continue to happen in future?

MIC answered as follows:

NHK itself is considering the promotion of effective international broadcasting, including various types of technologies regarding current international shortwave radio broadcasting.

Countries are moving towards television rather than radio, so it is not surprising if these events continue to occur in future.

(10) Regarding authorization for the Japan Broadcasting Corporation (NHK) to provide programs to MOBILE BROADCASTING CORPORATION on a business basis

(Consultation No. 30)

MIC explained the authorization for NHK to provide programs to MOBILE BROADCASTING CORPORATION on a business basis as follows. The Council deliberated this matter and replied indicating that the Council regarded it as acceptable.

○ Explanation by MIC

MOBILE BROADCASTING CORPORATION is conducting the first mobile satellite digital broadcasting in Japan. As an overview of their services, the company provides programs to different parts of Japan, including sounds and moving images, through satellite broadcasting by using a satellite station into which the programs have been uploaded through uplinks. As urban areas often have poor reception areas, such as those in the shadow of another building, the company has set up a configuration using satellite complementary broadcasting stations, a configuration that enables users anywhere in the urban areas to receive the company's programs. MOBILE BROADCASTING CORPORATION started broadcasting programs on October 20, 2004 and has been gradually expanding its services since then.

This consultation deals with a request from NHK that wishes to provide news programs, sport live broadcasts, and other general programs of a total of 8 hours per day to MOBILE BROADCASTING CORPORATION from October 1, 2006 to September 30, 2007. In addition, NHK may provide more programs than those listed above on request from the company in the case of an emergency disaster in the light of the role of mobile broadcasting as information sources at the time of a disaster. It intends to allow NHK to conduct these operations under special approval based on the Broadcast Law.

Concerning income and expenditure, according to a report from NHK, the income is 204 million yen and the expenditure is 195 million yen, resulting in a difference of 9 million yen, which will be NHK's fees for the broadcasting rights.

To approve the request from NHK, MIC applies the Broadcast Law to it by considering the following: At the current point in time when mobile broadcasting is only about two years old, it is still establishing its ground as a broadcasting method. The fact that NHK that has rich experience and know-how relating to digital broadcasting and provides programs as explained above will contribute to the diffusion and development of mobile digital broadcasting services, and to the advancement and development of broadcasting services and their reception in Japan. For this reason, the business that NHK wishes to conduct is an operation particularly required for the advancement and development of broadcasting services and their reception.

Note that some may argue that this business by NHK may be conducted in pursuit of profits, but MIC recognizes that NHK will not engage in the business for a lucrative purpose as NHK will offer its programs with an estimated fee that only covers the actual cost and expenses and the broadcasting right fees.

(The Radio Regulatory Council Secretariat is responsible for the wording of this document.)