INTERNATIONAL TELECOMMUNICATION UNION

Radiocommunication Bureau
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Circular Letter
CR/138

14 February 2000

To Administrations of Members States of the ITU

Subject: Implementation of Resolution 30 (WRC-97), cutover of the LF/MF and the FXM portions from **FMS** to ***TerRaSys*** and other related matters

References: BR Circular letter No. CR/36 dated 12 April 1995
BR Circular letter No. CR/63 dated 4 November 1996
BR Circular letter No. CR/99 dated 7 August 1998
BR Circular letter No. CR/110 dated 4 December 1998
BR Circular letter No. CR/118 + add1, dated 31 March 1999 and 23 April 1999
BR Circular letter No. CR/120 dated 31 March 1999
BR Circular letter No. CR/123 dated 7 June 1999
BR Circular letter No. CR/125 dated 30 July 1999
BR Circular letter No. CR/128 dated 9 September 1999
BR Circular letter No. CR/134 dated 22 December 1999

To the Director-General

Dear Sir or Madam,

1. With the above circular letters, the Radiocommunication Bureau informed your Administration on various aspects of the Terrestrial Radiocommunication System (***TerRaSys***) as well as about various steps in the implementation of Resolution 30 (WRC-97) in the part dealing with the terrestrial services. In summary, ***TerRaSys*** represents the new frequency management tool of the BR for notification, publication and examination of data submitted by administrations, which replaced the previous Frequency Management System (**FMS**). On the other hand, Resolution 30 (WRC-97) instructed the Bureau to introduce the CD-ROM format for the publication of the Weekly Circular, including the Special Sections. This Circular letter addresses the implementation of Resolution 30 (WRC-97) with respect to the remaining portions of ***TerRaSys***, i.e. the portions dealing with LF/MF broadcasting and with fixed and mobile services.

2. As your Administration is certainly aware, ***TerRaSys*** is composed of three components (LF/MF broadcasting, VHF/UHF broadcasting, FXM - fixed and mobile services), whose structures were described in circular letters Nos. CR/125, CR/120 and CR/118, respectively. With Circular letter No. CR/128, the Bureau informed your Administration about the cutover of the FM/TV portion from **FMS** to ***TerRaSys*** that has been effected during the weekend of 28 - 29 August 1999. The Bureau hereby informs your Administration that the cutover of the other two portions

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(i.e., LF/MF and FXM) had been effected during the weekend of 11 - 12 December 1999. Therefore, weekly Circular No. 2407, dated 7 December 1999, represents the last publication in the WIC series which still contained particulars of frequency assignment notices to terrestrial services. Weekly Circulars Nos. 2408 and 2409, dated of 14 and 21 December 1999 respectively, did not contain any information on terrestrial notices. You are certainly aware that WIC. No. 2409 represents the last ever publication in the WIC series in paper, microfiche and diskette formats.

3. In communicating the above information, the Bureau wishes to inform you that as of 11 January 2000, the new publication, the "BR International Frequency Information Circular" (BR IFIC), which is published in CD-ROM format in pursuance of Resolution 30(WRC-97), integrates both terrestrial and space services and represents the only regulatory publication resulting from the application of the relevant provisions of the Radio Regulations and the associated Regional Agreements. As far as terrestrial services are concerned, the information related to the broadcasting services (in the LF, MF, VHF and UHF bands) is to be considered as official, while the information concerning the fixed and mobile services is still unofficial and is included in the CD-ROM entitled BR IFIC (Terrestrial services) for testing purposes. In this manner, administrations would be able to test all salient features of the complete CD-ROM publication, as well as to check the conversion process from FMS to ***TerRaSys*** insofar as the fixed and mobile services are concerned. In this connection, the Bureau wishes to indicate that the information on the FXM component of ***TerRaSys***, which is included in BR IFIC No. 2410, corresponds to the reference situation of the MIFR, as on 10 December 1999, i.e., the same cutoff date which was used for preparation of the *December-1999* edition of the IFL (see publication notice 219-2-9, dated 24 November 1999). Consequently, these two publications represent reference documents that may be used for verification of the correctness of the conversion process and for tracing the dissociation/merging of the relevant assignments from the FMS format to the ***TerRaSys*** format, bearing in mind the differences of the data structures in these two systems. In this connection, the Bureau wishes to indicate that it completed the examination of all frequency assignment notices that were received by 1 October 1999 and that were subsequently declared complete – the relevant frequency assignments are therefore included in both reference documents referred to above. The only exception represents some 7000 frequency assignments to stations in terrestrial services; whose frequencies are situated in the bands shared with space services, and which are still in the examination phase, as their examination depends on the related examination to frequency assignments in the space services.
It is necessary to explain that due to the limitations of the ODBC used by the TerRaQ programme to access the data base, there exist problems when consultations involve a great quantity of entries (for example, selection of all assignments of a given country). The Bureau is currenty seeking a solution to this problem and any development in this respect will be published at http://www.itu.int/brtpr/brific/index.html

4. For the preparation of BR IFIC No. 2410 (terrestrial part), the Bureau decided to use the standard compression procedures (i.e., PKZIP), which enabled the Bureau to include the complete information, concerning all three ***TerRaSys*** components, into one single CD-ROM. In this manner, the preparation and the dispatch of the relevant CD-ROM publication is facilitated considerably. The uncompress procedures, which should be used by administrations, are straightforward and could be done with the programme PKUNZIP which is distributed with the CD-ROM. The uncompressed file would require some 1.85 gigabytes of disk space. For reading the data, administrations would need the Microsoft Access software (version 97 or later).

5. On this occasion, the Bureau wishes to address also the on-line availability (through TIES) of the BR IFIC data (terrestrial services), which is referred to in the operative paragraph 5, under instructs the Director BR, of Resolution 30(WRC-97). In view of the large volume of data which is

included in each BR IFIC edition (terrestrial services), the Bureau considers that it would be inappropriate to put the whole database on TIES, because the downloading of the relevant information would require a considerable amount of time and may result in the overloading of the network, which may compromise other ITU services over TIES. Therefore, the Bureau decided to make available on-line, for each BR IFIC edition, only the information which is specific to the latest publication, using the option "Latest publication query" in TerRaQ. The relevant information can be downloaded from the ITU web site (http://www.itu.int/brtpr/brific/index.html), free of charge, during the initial period of three months, starting with BR IFIC No. 2410.

6. The Bureau wishes to use this occasion and to report on some of its experiences with regard to the notices submitted in ***TerRaSys*** formats that became mandatory on 1 April 1999 for the VHF/UHF broadcasting, and on 1 October 1999 for the other two components (LF/MF broadcasting and FXM). As indicated in the above-referred circular letters, the new formats are very similar to the former ones, but are much more oriented towards automated treatment of data with an emphasis on notification by electronic means. Therefore, the notifications have to be correctly filled in (in the case of paper notices) and correctly formatted (in the case of electronic notices) as incorrect notifications may result in erroneous treatment with serious consequences. With respect to the notifications that were received so far in the new formats, the Bureau found that many notices were incorrectly filled in and that many of the Bureau's instructions, as communicated with the above-referred circular letters, were not followed. In order to avoid any risk of inappropriate treatment, at least in this initial stage, the Bureau devotes considerable efforts in analyzing the submitted data and in reformatting them, where appropriate. However, as ***TerRaSys*** was conceived for automated treatment of data, the manual reformatting would become impracticable with large amounts of data and the Bureau will not be able to proceed with manual interventions of a large scope if it wishes to comply with the deadlines stipulated in the Radio Regulations as to the publishing of complete data.

7. The Bureau is aware that administrations cannot easily adapt to the new formats. On the other hand, the favourable reactions of many users as to the advantages of the new formats, at various occasions (such as the Radiocommunication Seminars in Geneva (November 1998), Havana (April 1999) and Kiev (June 1999)), convinced the Bureau that the new concepts are easy to use if properly explained. To this end, and in addition to the explanations already contained in the above-referred circular letters, the Bureau prepared some guidelines (in the Annex to this circular letter) as to the use of the identifying parameters in new formats, based on the current experiences in treating the notifications of the administrations, and especially making reference to the most common errors. In addition, and based on several requests, the Bureau prepared several samples of filled-in notices, both in paper format and in format appropriate for electronic notification, and posted them at the ITU web site, at the address: http://www.itu.int/brtpr/notice-forms/index.html. Administrations are encouraged to visit regularly that address as it will contain updated information on various aspects on the use of the relevant notice forms.

8. The Bureau wishes to indicate that, with respect to the majority of the new formats, it distributed an appropriate software package (often referred to as ***TerRaNV***) for validation of the relevant data before their notification to the Bureau. So far, the distributed package is able to validate notice types T01, T02, TB1, TB2, TB3, TB4, TB5, T11, T12, T13 and T14. The validation rules for the remaining notices are being progressively added to this package, whose most recent version is regularly distributed with each BR IFIC. In addition, the Bureau prepares appropriate software packages, for use by administrations, which will create appropriate notice forms, in electronic format. The administrations will be informed accordingly as to the availability of such a

package which could be downloaded free of charge from the ITU web; to this effect, administrations are advised to consult regularly the web page referred to in paragraph 7 of this circular letter for updated information in this respect.

9. The Bureau hopes that the information in this circular letter will facilitate your Administration's transition from the old to the new formats and remains at the disposal of your Administration for any further clarification it may require on this subject. Queries of a general nature should be addressed to the ITU contact person, Mr. A. Méndez, telephone: +41 22 730 5574, fax +41 22 730 5785, e-mail: brmail@itu.int. Your requests for help with TerRaSys software should be sent to the special e-mail address that was created in this respect, i.e., to terrasofthelp@itu.int .

Yours faithfully,

Robert W. Jones
Director
Radiocommunication Bureau

Annex: 1

Distribution:

- Administrations of Members States of the ITU
- Members of the Radio Regulations Board

ANNEX

(to Circular Letter No. CR/138)

Indication of the identifying parameters when notifying data in *TerRaSys* format

1. The ***TerRaSys*** elements (assignments, allotments, or notices, as appropriate; see Annex 1 to CR/118) are structured in terms of *assignment* parameters, *antenna* parameters and *service area* parameters. Some of the *assignment parameters* are used as identifying parameters. The identifying parameters are unique; other data elements may have multiple appearances. Every new notification, after the check of completeness, is subject to the check of uniqueness: if the identifying parameters are identical (in all respect) with one existing record (in the given fragment), the new notification is considered as a **replacement** to the existing record, otherwise it is considered as an **addition**.

2. There are two options for identifying the recorded assignments:

- through a set of identifying parameters;
- through the administration's unique identifier.

3. If the first option is used (i.e., identification through a set of identifying parameters) then the administration has to submit the required set of identifying parameters, in addition to the indication of the fragment (i.e., the part of the database which is to be updated) and the administration's symbol (three-letter symbol as it appears in the Preface). For notice types T01, T02, T03, T04, TB1, TB2, TB3, TB4, TB5, TB6, TB7, TB8 and TB9, the identifying parameters are always the *assigned frequency* and the *geographical coordinates of the site*. Identifying parameters for notice types T11 – T17, which have to be indicated in addition to the fragment (i.e., the part of the database which is to be updated) and the administration's symbol (three-letter symbol as it appears in the Preface) are summarized in Table A-1:

Table A-1

Identifying parameters for notices T11 – T17

Notice type (Description)	Identifying parameters
T11 (Transmitting station in fixed service) T17 (Transmitting station using adaptive systems)	• assigned frequency • class of station • designation of emission • class of operation (for FX only) • hours of operation • geographical coordinates of the site
T12 (Transmitting station in other services, except FX) T16 (Transmitting station in the bands governed by GE85 Agreement)	• assigned frequency • class of station • designation of emission • hours of operation • geographical coordinates of the site

T13 (Receiving station)	• assigned frequency • class of station • designation of emission • hours of operation • geographical coordinates of the site
T14 (Typical transmitting station)	• assigned frequency • class of station • designation of emission • hours of operation • Standard geographical area or geographical coordinates of the centre of the circular area
T15 (Frequency allotment in the maritime mobile service, AP S25)	• channel number • designation of emission • hours of operation • allotment area

4. When submitting the identifying parameters, the administration has to submit them exactly as they appear in the database (i.e., in BR IFIC) so as to ensure their complete match with the related parameters of the recorded assignment, notably:

- if the notification is intended for modifying an existing record, all identifying parameters of the new notification have to match completely with the related parameters of the recorded assignment. For instance, in the case of a VHF/UHF broadcasting notification, if the administration opted for common elements (i.e., assigned frequency and geographical coordinates of the site) the identifying elements have to be presented in the same manner as they appear in the BR IFIC (i.e., without seconds, if BR IFIC contains no seconds for the referred assignment); otherwise the notification will be flagged with a *fatal error* message, which means that the administration will be contacted to rectify the data, or the notification will be returned;
- if the notification is intended to add a new record, the identifying parameters have to be different from the related parameters of any recorded assignment of that administration. If the target manager of ***TerRaSys*** finds an existing record whose recorded parameters match completely with the identifying parameters of the new notification, the new notification will be flagged with a *fatal error* message, which means that the administration will be contacted to rectify the data, or the notification will be returned.

5. If the second option is used (i.e., through the *administration's unique identifier*) then administrations have to observe very strictly the rules concerning the creation, maintenance and use of the identifiers, as the management of such identifiers is within the sole responsibility of the notifying administration. Here, as well, the mismatch may create undesirable effects (i.e., modifying a wrong target).

6. As indicated in the above-referred circular letters, the *administration's unique identifier* is a new field that did not exist on the old notice forms (FMS format). This field was requested by several administrations that expressed the need for such a field, so as to facilitate the notice management process. Therefore, this field does not exist in the current database and cannot be used for identification purposes from the very beginning. However, many administrations are confusing this field with the former fields "Administration serial Number" or "IFRB/BR assignment ID" and continue to supply the values of these former fields as if they were

administration's unique identifiers Administrations are, therefore, invited not to use this field unless they establish a proper procedure which would guarantee the uniqueness of such a parameter. For those administrations that wish to introduce such identifiers in the existing records, the Bureau established separate notice forms (TB1 for VHF/UHF broadcasting, TB6 for the LF/MF broadcasting), and the following procedure is suggested:

- using the latest data, as they appear in BR IFIC for the given fragment, administrations enter the value of the identifying parameters (fragment, assigned frequency, geographical coordinates) in the appropriate fields AND the administration's unique identifier in the field "New Administration Unique Identifier" (key **t_adm_ref_id**);
- after ascertaining that the relevant notice was correctly processed by the BR (by monitoring the BR IFIC publications), the administration may use its unique identifier for any subsequent action in the notice management process (e.g., for updating the geographical coordinates to more precise values).