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**D E C I S I O N**  
**of 15 January 2002**

**Case Number:** T 0744/99 - 3.5.1

**Application Number:** 90900945.8

**Publication Number:** 0448618

**IPC:** H04H 1/00

**Language of the proceedings:** EN

**Title of invention:**  
Improvements to RDS radio system

**Patentee:**  
BRITISH BROADCASTING CORPORATION

**Opponent:**  
Interessengemeinschaft für Rundfunkschutzrechte GmbH  
Schutzrechtsverwertung & Co. KG

**Headword:**  
RDS radio system/BBC

**Relevant legal provisions:**  
EPC Art. 52, 56, 87(1)

**Keyword:**  
"Entitlement to claimed priority - main request (no)"  
"Inventive step - main request (no), first auxiliary request  
(yes)"

**Decisions cited:**  
G 0002/98, T 0339/89

**Catchword:**

For the subject-matter of a claim to be derivable "directly and unambiguously, using common general knowledge, from the previous application as a whole" in accordance with opinion G 0002/98 of the Enlarged Board of Appeal, such subject-matter must not be novel with respect to the disclosure of the priority document. The application of common general knowledge can only serve to interpret the meaning of a technical disclosure and place it in context; it cannot be used to complete an otherwise incomplete technical disclosure (see point 4 of the reasons).



Case Number: T 0744/99 - 3.5.1

**D E C I S I O N**  
**of the Technical Board of Appeal 3.5.1**  
**of 15 January 2002**

**Appellant:** Interessengemeinschaft  
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Schutzrechtsverwertung & Co. KG  
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**Representative:** Eichstädt, Alfred, Dipl.-Ing.  
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**Respondent:** BRITISH BROADCASTING CORPORATION  
(Proprietor of the patent) Broadcasting House  
London W1A 1AA (GB)

**Representative:** Abnett, Richard Charles  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 19 May 1999  
rejecting the opposition filed against European  
patent No. 0 448 618 pursuant to Article 102(2)  
EPC.

**Composition of the Board:**

**Chairman:** S. V. Steinbrener  
**Members:** A. S. Clelland  
H. Preglau

## Summary of Facts and Submissions

I. This appeal is against the decision of the Opposition Division to reject an opposition against European patent number 0 448 618. The opponent had requested revocation of the patent on the ground of lack of inventive step in accordance with Article 100(a) EPC, and had *inter alia* cited the following document:

D1: European Broadcasting Union (EBU)  
document Tech 3244-E, "SPECIFICATIONS OF THE RADIO DATA SYSTEM RDS FOR VHF/FM SOUND BROADCASTING",  
Brussels, March 1984.

II. Following oral proceedings the Opposition Division held that the subject-matter of each of independent claims 1 and 8 involved an inventive step; the opposition was accordingly rejected and the patent maintained as granted. The appellant (opponent) lodged an appeal against this decision and paid the prescribed fee. It was requested that the decision under appeal be set aside and the patent revoked in its entirety. An auxiliary request was made for oral proceedings. In a subsequently filed statement of grounds of appeal the following documents were newly cited:

D2: BBC Design and Equipment Department Technical Memorandum No. A.1028(87) "BBC Radio Data System - RDS Application of the PI and ON features",  
S.J. Parnall and S.R. Ely, 11 March 1988, archived by the EBU as "GT R/RDS 006 rev.";

D3: Minutes of the second meeting of Specialist Group R/RDS of Working Party R of the EBU in Lisbon on 2 to 4 November 1988, with Appendices 1 to 9 and

dated 16 January 1989;

- D4: Document GT R/RDS 051 of the EBU, "Draft Supplement to Tech. 3244-E", Parnall et al, undated; and
- D5: CENELEC European Standard EN 50067 "Specification of the radio data system (RDS)", Brussels, April 1992, cover page, page 25 and pages 29 to 32.

It was argued that D2 in particular disclosed the so-called "cyclic method" of presenting "enhanced other networks information"; this approach extended the basic RDS specification of D1 and disclosed all the features of claims 1 and 8, so that these claims lacked novelty.

In a subsequent submission the appellant also argued that claims 1 and 8 were not entitled to the claimed priority date, so that D4, which bore a handwritten date of "12.01.89", constituted prior art against these claims.

III. The respondent (patentee) in reply argued that documents D2 to D4 had not been made available to the public. D2 was a BBC technical memorandum for internal use only; it had been released in confidence to the members of the EBU R/RDS group but had never been published. D3 and D4 were confidential working documents of the EBU R/RDS group which had not been made available to the public. The respondent pointed out that D4 had however formed the basis of a published document:

- D4a: "Specifications of the Radio Data System RDS for VHS/FM Sound Broadcasting", Supplement 4 to

Tech. 3244-E, EBU, Brussels, July 1989.

D4a was published between the claimed priority date and the filing date of the European application, but as independent claims 1 and 8 were entitled to the claimed priority it did not constitute relevant prior art. The respondent made an auxiliary request for oral proceedings.

IV. Oral proceedings were appointed by the Board. In a communication accompanying the summons to oral proceedings the Board stated that it would be necessary to decide whether the deliberations of the standards group referred to as the "EBU Specialist Group R/RDS" were confidential, so that documents D3 and D4 were confidential, and whether D2 was intended for internal use by the respondent and only released in confidence to members of the group. The communication also discussed the interpretation of claim 1 and the question of whether the claims of the patent were entitled to the claimed priority date. Attention was drawn to opinion of the Enlarged Board G 2/98 (OJ EPO 2001, 413). The issue of inventive step was also discussed.

V. Following the summons to oral proceedings the respondent filed a revised main request and a number of auxiliary requests, and made further proposals for amendment to both the main request and auxiliary requests. Furthermore, the respondent cited a number of documents for the first time in the appeal proceedings and conceded the fact that document D2 was distributed to broadcasters and the receiver industry without an obligation to confidentiality before the priority date of the patent in suit (see end of page 4 of the letter

dated 13 December 2001).

- VI. Oral proceedings were held on the 15 January 2001. In the course of the oral proceedings the respondent withdrew the main request and filed revised claims of a main request and a first auxiliary request. Alternatively, maintenance of the patent on the basis of the auxiliary requests filed with the letter of 13 December 2001 was requested.

Claim 1 of the main request is directed to a radio data system and reads as follows:

"A radio data system in which data accompanying a programme is transmitted in groups of at least four blocks, the groups being of various types and all comprising in a first block the programme identification code (PI(TN)) for the transmitted programme and in a second block both a code (GT) identifying the group type and a usage code (UC) identifying which of a selection of items of information are carried in one of the third and fourth blocks, which blocks include programme identification codes of other networks (PI(ON)) and alternative frequency codes for other networks (AF(ON));

characterized in that:

the fourth block always carries a programme identification code for another network (PI(ON)), the third block carries various items of information pertaining to the said other network, including alternative frequency codes for the said other network (AF(ON)), and the second block includes a usage code (UC), which determines which of the said various items of information is carried by the third block."

Claim 8 of the main request is directed to a receiver and reads as follows:

"A radio data system receiver for use in a system in which data accompanying a programme is transmitted in groups of at least four blocks, the groups being of various types and all comprising in a first block the programme identification code (PI(TN)) for the transmitted programme and in a second block both a code (GT) identifying the group type and a usage code (UC) identifying which of a selection of items of information are carried in one of the third and fourth blocks, which blocks include programme identification codes of other networks (PI(ON)) and alternative frequency codes for other networks (AF(ON)), the receiver comprising means (16) for decoding received message groups, and processing means (18) for determining the group type from a group type code (GT) in the second block of the group and for processing the data in the remainder of the second block and the third and fourth blocks accordingly;

characterized in that:

the processing means (18) includes means programmed to identify a group type in which: the fourth block always carries a programme identification code for another network (PI(ON)), the third block carries various items of information pertaining to the said other network, and the second block includes a usage code (UC) which determines which of the said various items of information is carried by the third block."

The claims of the first auxiliary request differ from those of the main request only in that the claims to a receiver are deleted.



VII. When filing the new claims the respondent requested that the case be remitted to the Opposition Division for examination of the opposition to be continued; it was argued that documents D2 to D4 and D4a had been cited for the first time in the appeal proceedings and the respondent would be deprived of two instances were the Board to hold all of these documents to have been published and to decide on the basis of the documents.

The appellant maintained his request for setting the appeal aside and revoking the patent in suit.

VIII. At the end of the oral proceedings, the Chairman announced the Board's decision.

## **Reasons for the Decision**

### 1. *Admissibility*

1.1 The appeal is admissible.

### 2. *Allowability of amendments*

2.1 In the course of the oral proceedings the respondent filed revised claims in which the language of claim 1 was adapted to correspond to that of claim 8 as granted. This amendment was said to have been occasioned by the Board's comments on the interpretation of claim 1 as granted.

2.2 Although the appellant drew attention to the difference in wording between claim 1 of the main and first auxiliary requests and claim 1 of the granted patent and raised objection of claim broadening,

Article 123(3) EPC, it became clear in the course of the discussion in the oral proceedings that no technical difference could be identified between the two claims. The appellant accordingly did not pursue the assertion that the amended claim 1 was broader in scope than the granted claim.

2.3 In the Board's view the claim, which includes all the features of the granted claim 1, does not give rise to objection. Claim 1 of both the main and first auxiliary requests was accordingly admitted to the proceedings.

3. *Remittal to the first instance*

3.1 The respondent disputed whether documents D3 and D4 had been made available to the public but did not object that they were late-filed, Article 114(2) EPC. It was however argued that if the Board were to hold them to constitute prior art and to decide on the basis of documents D2 to D4 and D4a then the appeal should be remitted to the Opposition Division in order to preserve two instances.

The Board notes that documents D2 to D4 were presented for the first time at the commencement of the appeal proceedings but were well-known to the respondent: D2 originates from the respondent whilst D3 originates from a specialist group on which the respondent was well represented; indeed most of the inventors named in the patent appear to have been members of this specialist group; D4 and D4a are descriptions of the claimed system drafted by four of the inventors named in the patent. The Board accordingly notes that the respondent was well aware of the contents of D2 to D4 at the time the priority document was prepared, and of

D4a when the patent application was prepared. Moreover, the issue of whether or not documents D3 and D4 were available to the public need not be decided since these documents are no longer relevant in view of pre-published document D2 and intermediate document D4a, the latter having been cited by the respondent himself. The Board therefore sees no reason to remit the matter to the Opposition Division.

4. *Priority (main request)*

4.1 The appellant argued that claim 8 was not entitled to priority because the British patent application from which priority was claimed did not disclose a receiver. Although most of the features of the receiver were in essence those required to receive a signal in accordance with the system of claim 1, claim 8 additionally specified means for decoding received message groups and processing means including means programmed to identify a particular group type. The priority document was concerned exclusively with the encoding of the signal with no disclosure of decoding. How this could be achieved, either by hardware or software solutions, was not derivable from the priority document. The standard to be adopted in deciding such issues was given by the Enlarged Board's opinion in G 2/98, which at paragraph 9 made clear that priority could not be claimed validly if subsequent to the disclosure of the priority document features were added. Although a receiver including a processor was known in the prior art, the known receiver could not receive the signals specified in the priority document. In any case, this receiver was not disclosed in the priority document but in D1; the place for disclosing the invention was not a prior art document but the

priority document itself.

4.2 The respondent argued that the appellant had misinterpreted the Enlarged Board's opinion. G 2/98 explicitly stated that common general knowledge should be taken into account. In the patent in suit the general principles for the construction of a suitable receiver formed part of that common general knowledge. All RDS receivers included means for decoding received message groups and processing means including means programmed to identify a particular group type; it was part of the common general knowledge of the skilled person at the claimed priority date that RDS receivers should be implemented in software so that, given the particular group types, the skilled person would directly and unambiguously be led to provide the necessary software.

4.3 The Board would draw attention to the wording of the first question which the President of the EPO, making use of his power under Article 112(1)(b) EPC, referred to the Enlarged Board in G 2/98:

"Does the requirement of the "same invention" in Article 87(1) EPC mean that the extent of the right to priority derivable from a priority application for a later application is determined by, and at the same time limited to, what is at least implicitly disclosed in the priority application?"

This question was answered in the affirmative, see points 9 and 11 of the opinion. The expression "what is at least implicitly disclosed" is stated at point 2 as requiring that the specific combination of features

present in the claim must at least implicitly be disclosed in the application whose priority is claimed. Although the respondent asserted that this excluded a "novelty test" it appears from a reading of the Enlarged Board's opinion, see in particular point 8.1, that the "disclosure test" which the Enlarged Board had in mind corresponds to such "novelty test" in the present case. The example given in the opinion concerns the situation which arises under Article 54(3) EPC when in the case of two competing applications the claims of the earlier application vary slightly from those of the priority document so as to correspond to those of a later filed application which correctly claims priority. Since the subject-matter of the later application would then lack novelty with respect to that of the earlier application, the Enlarged Board comments that this situation shows that an extensive or broad interpretation of the concept of "the same invention" could be to the detriment of a later applicant who correctly claimed priority and actually disclosed the claimed subject-matter first.

4.4 In the present situation, the Board considers that claim 8 fails the "disclosure test" since it is novel with respect to the disclosure of the priority document.

4.5 Although the respondent emphasised the Enlarged Board's reference at point 9 to deriving the subject-matter of the claim "directly and unambiguously, using common general knowledge" from the previous application as a whole, this does not mean that common general knowledge can be used to fill in gaps in a disclosure. Quoting this Board's decision T 339/89 (not published in OJ EPO) at point 8:

"... the claimed subject-matter is not directly derivable from the originally filed application documents but requires the exercise of conscious choice on the part of the skilled man. This process cannot properly be described as "interpretation" in the sense of elucidating the technical content by the application of the common general knowledge of the art, but rather requires on the part of the skilled man the application of that knowledge to derive a new combination."

In other words, the application of common general knowledge can only serve to interpret the meaning of a technical disclosure and place it in context; it cannot be used to complete an otherwise incomplete technical disclosure.

4.6 Since the priority document only discloses a new signal protocol without any disclosure of a suitable receiver, it follows that claims 8 and 9 of the main request, which are directed to such a receiver, are not entitled to the claimed priority date, but only to the filing date, ie 15 December 1989.

5. *Inventive step (main request)*

5.1 The patent is concerned with an enhancement of a feature of the RDS system referred to as the "other networks" or ON feature. The ON feature is part of the basic RDS specification of D1, see Figure 10 at page 21, which illustrates so-called "type 3" groups which support the feature and which enable a suitably adapted car radio to speed up switching to another service if the driver is out of his usual area. Modern car radios have memories which store information in the

form of a so-called PI or programme identification code, thus specifying a programme rather than a frequency. If the corresponding pre-set is pressed and the usual frequency is not available the memory has a list of alternative frequencies, so that it is not necessary to institute a search to scan the entire FM band, which can take a considerable time if there are many stations. The ON feature extends this idea by building up in memory a data bank cross-referencing to services which a user tuned to a particular station might alternatively choose, so that it is possible to provide instantaneous switching. The original ON proposal as shown in Figure 10 of D1 gives rise to the problem that information for only 8 other networks can be stored; this is because the type 3A group only allocates 3 bits for the ON address code labels.

5.2 Claim 8 will be considered first in view of the above finding on priority.

5.3 It was common ground between the parties that document D4a was publicly available in July 1989 and that it discloses the same subject-matter as the priority document, namely the Enhanced Other Networks (EON) feature for use in the RDS system. It does not disclose a receiver. However, as acknowledged explicitly by the respondent in the letter of 26 July 2000, see page 9, last paragraph: "The person skilled in the art, to whom the patent and priority document are directed, is an RDS radio engineer who would, at the priority date of the patent, have been well aware of the contents of D1. That skilled person reading the priority document would know precisely how to build a receiver to receive the RDS group described therein, without any inventive effort at all". Replacing

"priority document" by "D4a" in essence gives the Board's position on the matter; D1 is the basic RDS specification and describes at page 6, Figure 2 a suitable radio data receiver/decoder which requires a "data processor" to derive individual data blocks once the signals have been decoded. D4a is a supplement to D1; it explicitly refers to D1 so that the skilled person will read D4a in the light of the disclosure of D1.

5.4 It was not contested by the respondent that the RDS receiver of claim 8 was for use in an RDS system in accordance with D4a; as noted above in connection with priority, the only receiver features explicitly claimed are means for decoding received message groups and processing means programmed to identify a specific group type. D1 discloses means for decoding received message groups. It does not disclose processing means for carrying out the specific function claimed in claim 8, but it is clear from point 5.3 above that the skilled person, applying the common general knowledge in the RDS art, would be able to implement the necessary programming without the exercise of invention.

5.5 The subject-matter of claim 8 of the main request accordingly lacks an inventive step, Articles 52(1) and 56 EPC.

5.6 Since claim 8 is not allowable it follows that the main request as a whole is not allowable.

6. *Inventive step (auxiliary request)*

6.1 The appellant in effect raised two inventive step



objections against the claimed subject-matter, one based on the disclosure of D1 and another based on that of D2. Dealing with the objection based on D1 first, the appellant points out that in the type 3A group shown in Figure 10 of D1 the PI code for the transmitting network is sent in the first block of every group; in type 3A groups the fourth block is used for four different kinds of information, the PI code of another network being one of them, in dependence on a 2-bit usage code  $C_1C_0$  in the second block. If field tests showed that this arrangement led to groups being discarded because the PI code of the other networks had been received incorrectly, it would be obvious for the skilled person to transmit the PI code of the other networks in every fourth block, in an analogous manner to the PI code for the transmitting network. If this were to be done it would be necessary to transfer all the other information to the third block, leading to the claimed system.

6.2 The Board observes that claim 1 requires more than for the PI code for the other networks to be in the fourth block; it also requires in essence that all other information pertaining to the other networks is carried in the third block and that the usage codes for this information are in the second block, ie a substantive re-arrangement of the prior art type 3A group signal. In accordance with D1 usage codes are provided in the second block but these are for the information in the fourth block.

6.3 In the Board's view the use of a PI code for other networks in every fourth block is counter-intuitive and would be rejected by the skilled person because *prima facie* the data rate would thereby be substantially

decreased. The appreciation that in practical circumstances this is not the case is necessary in order to make such modification to the type 3A group of D1 and the skilled person, considering D1, would if the PI code for other networks were unreliable be led to modify the group whilst remaining within the existing standard by transmitting the PI code more frequently, but leaving room for the remaining other network information transmitted in the fourth block. An additional reason for maintaining the existing arrangement is that D1 constitutes a standard and the skilled person could be expected to seek to remain within the standard. It is moreover pointed out that the problem which arises from the D1 arrangement is predominantly that only 8 other networks can be addressed, not that the PI codes are lost in poor signal conditions (see page 2, line 49 to page 3, line 1 of the patent in suit); the skilled person, faced with this latter problem, would have no reason to increase the number of times the PI code is sent since doing so would reduce the information flow yet further. For these reasons the Board considers that the skilled person, starting out from D1, would not be led to the claimed system.

- 6.4 D2 seeks to solve this problem by an alternative group structure, referred to as the "cyclic method". In essence, a specific usage code UC, transmitted in the second block of a type 3 group (see Figure 10 of D1), is used to identify a new PI code. In D2 a usage code of 00 indicates that a new PI code is being sent. The succeeding groups will have respective usage codes and will provide information regarding the network corresponding to the identified PI code. When the corresponding ON information has been sent the usage

code is reset to 00 and a new PI code sent, with corresponding network information. The number of PI codes is accordingly unlimited. However, it was not contested by the parties that field tests showed that this method was unsatisfactory; if because of poor signal conditions the receiver misses a new PI code the succeeding blocks of information cannot be related to a network and must therefore be discarded. It was found that in practice the disadvantage of data loss is greater than any advantage from having an unlimited number of networks.

- 6.5 The Board considers that D2 represents an alternative solution to the problem of the limited number of other networks available in the D1 type 3 group signal structure. As noted above, it gives rise to the new problem that the PI code is only sent once for each network and information can be lost in poor signal conditions. It was asserted by the appellant that in the cyclic method the PI code for other networks must always be present in the fourth block; the Board notes that this does not appear to be the case, paragraph 3.2 of D2 showing a transmission sequence in which the PI code is only present whenever the usage code reaches 00, as discussed above. The appellant also drew attention to the wording of the description in the patent, which at page 4, lines 22 to 24 of the published specification states that "the terms first to fourth block ... distinguish the blocks without necessarily indicating the order in which they are arranged". In other words, the terms third and fourth block in the claims should be understood as being interchangeable. The Board understands that although the description indicates that the blocks can be in a different order, the claim restricts the invention to

specific information in specific blocks.

- 6.6 It is observed that in accordance with the patent in suit although successive blocks cycle through the information for a given network, making use of the usage code to identify specific information, the PI code does not form part of this information but is instead sent continuously as the information in the fourth block of a group. Claim 1 of the auxiliary request reflects this, stating that the fourth block always carries a PI code. By continuously transmitting the programme identification for other networks in the fourth block it is thus always possible to relate the information in the third block to a specific PI code being transmitted in the fourth block. Although the bandwidth of the transmitted information is reduced in comparison to the cyclic method since the programme identification is transmitted in every fourth block, the net result is greater efficiency since no blocks need be discarded.
- 6.7 In conclusion, the Board takes the view that the skilled person, given the disclosure of D2 and faced with the problem of the loss of information arising in the cyclic method, would not be led to devote the fourth block exclusively to PI data for other networks and to re-arrange the standard type 3 group signal. The subject-matter of claim 1 accordingly involves an inventive step having regard to the disclosure of D2.
- 6.8 Although reference was made by the appellant to a number of other documents, no objection was formulated based on these documents.

7. The Board accordingly concludes that the patent can be maintained on the basis of the first auxiliary request. Hence, the respondent's further auxiliary requests need not be considered.

## **Order**

### **For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent as amended in the following version:

Claims 1 to 7 according to the first auxiliary request received during the oral proceedings, with description and drawings as granted.

The Registrar:

The Chairman:

M. Kiehl

S. V. Steinbrener