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**IEEE P802.11  
Wireless LANs**

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PT SE24

SE24(97)179  
30 November 1997**MINUTES OF THE 17th MEETING OF PROJECT TEAM SE24:  
SHORT RANGE DEVICES**

London, 17-18 November 1997

**1. Opening**

The chairman, Ms Anne Leino, bade the delegates welcome to SE24 meeting and thanked Mr Bonds and RA for the opportunity to hold the meeting in London. She stressed that this meeting should concentrate on finishing the report on 8.2 MHz EAS and discussions on the RFID the the 6.78 MHz and 13.56 MHz ISM bands.

The list of participants is annexed.

**2. Approval of the agenda**

The agenda (doc. (97)161 r.1) was approved without any comments.

**3. Minutes of the last meeting**

The minutes of the 16th meeting (doc. (97)157a) were approved without any changes.

**4. Report from the SRD Maintenance Group (SRD MG)**

Mr Connolly presented doc. (97)162, the SRD MG report to WGFM. The items which were discussed in SE24 are handled under the specific agenda item. Mr Connolly informed that SRD MG is going to arrange a workshop for industry about the Rec. 70-03 next year. Some SE24 members expressed their concerns because manufacturers are not allowed to participate to the SRD MG. Mr Connolly explained that this was a decision of WGFM. The purpose is not, however, to leave industry outside, the industry contact list is meant for the change of information for both sides. The workshop is an other means to be in contact with the industry.

Mr Connolly informed that SRD MG is going to propose Annex 9 (doc. (97)164) in the next WGFM meeting in December. If WGFM approves the inductive annex, it can be sent to the consultation in ERC and the consultation could be finished by February -98 at earliest.

**5. View of input documents**

SE24(97)1 is the list of documents.

## 6. Draft Decisions for I-ETS 300 220, 300 330 and 300 440

It was noted that the draft ERC decision on EN 300 220 will be discussed (and hopefully approved) in the next ERC meeting in the beginning of December. The standard EN 300 220 passed the vote and will be published in the near future.

## 7. Compatibility studies related to the revision process of SRD Recommendations

### 7.1 SRD Recommendation (70-03)

The published recommendation, doc. (97)163 was distributed for information. It was noted that the SRD MG had already proposed a number of editorial changes to the new recommendation.

### 7.2 EAS in the band 7.4 - 8.8 MHz

Mr Davies presented doc. (97)115 rev.5 based on comments received after the Blarney meeting. The meeting discussed which principle would be better in the report: to propose the limit of 9.0 dB $\mu$ A/m based on the calculations or the limit of 8.5 dB $\mu$ A/m based on existing limit in some countries. Some members were concerned because in September WGSE had proposed the lower limit (8.5 dB $\mu$ A/m) to WGFM. It was felt, however, that raising the limit after more detailed calculations is not a specific problem. Both views were supported but finally the meeting agreed to propose the 9.0 dB $\mu$ A/m because it is line with the calculated results.

During the meeting a lot of editorial changes were made. Mr Fockens from NEDAP checked the calculations and made some modifications to the propagation model annex. Mr Brooker drafted the conclusion and the whole meeting revised the executive summary. After that the report was approved in SE24 and will be sent to SRD MG to bring it forward to the December WGFM meeting. The liaison statement, doc. (97)176 r.2, proposes to add the frequency band 7.4 - 8.8 MHz to Annex 9 of the Rec 70-03 with the field strength limit of 9.0 dB $\mu$ A/m.

The report will be brought to WGSE in January and the possible modifications to the report from now on should be only editorial.

### 7.3 6.78 MHz and 13 MHz

Mr Sørensen presented doc. (97)124 r.2 on sharing between RFID and the primary radio services in the 6.78 MHz and 13.56 MHz ISM bands. He indicated the modifications which had been done to the draft report after the Blarney meeting. The document was discussed in details and a number of modifications were approved. The major modifications were:

- The change of the structure of the report so that the content of the current annexes go to the main text,
- More detailed descriptions of the applications,
- The two transmitter masks in B.4.5 will be put in separate figures to avoid confusion,
- Some of the primary services in C.5.1 and C.5.2 were not correct.

The question asked in the Blarney meeting about the possible lower spurious emission limits in the broadcasting bands was clarified: the lower limit is valid in the frequency bands above 30 MHz but not below.

It was agreed to send a liaison statement (doc. (97)175 r.2) and a systems reference document about RFID in the mentioned frequency bands to SRD MG for information as was discussed in the SRD MG meeting, too. The purpose of this is to avoid confusion about the mandate of SE24 although it is now clarified that SE24 can study and propose power limits in the frequency bands 4.78 - 30 MHz. It was considered necessary to 'warn' the SRD MG beforehand about the coming proposals for the changes in relation to the SRD recommendation.

It was discussed that the future outcome of the compatibility study, a proposal for a power level for RFID, can go to Annex 9 of the recommendation as long as the same limit can be applied to other inductive applications, too.

## **8. Technical problems associated with proposals from ETSI concerning 2.4-2.5 GHz**

Mr Connolly stressed that the new study about spread spectrum in the 2.45 GHz should be initiated as soon as possible although the SRD MG report states that SE24 would like to have the WGFM approval for the method of the existing study, doc. (97)14 r.7, first.

Mr Sørensen presented doc. (97)178 about microwave transponder systems. He concluded that the system operation range is determined by the sensitivity or threshold of the tag. This was not considered in the SE24 report on 2.45 GHz and the operation ranges promised in the report cannot be achieved with the mentioned interrogator power levels. However, the compatibility studies remain in force. The only possibility to achieve the wanted operation ranges with the allowed power levels is spread spectrum technics.

The finding of Mr Sørensen as well as the request from WGFM and SRD MG underline the fact that the existing report needs revision urgently (and that this is not only in the interest of the US companies). The chairman welcome ideas of how to put the effect of spread spectrum to doc (97)14 r.7. It was also emphasised that parameters of spread spectrum applications are needed for the new compatibility studies.

It was noted that manufacturers of high quality audio and video applications are now more interested in the 2.45 GHz band. Some SE24 members expressed their concern that the high business interest applications may push SRDs away from this ISM band to higher frequency bands.

Mr Horvath presented doc. (97)177 about the technical parameters of a multimode spread spectrum DS equipment. This document and doc. (97)173 from Lucent of the concern about allowing 500 mW spread spectrum equipment in the 2.45 GHz band will be discussed more in the next SE24 meeting.

## 9. SRDs in the band 138.2 - 138.45 MHz band

Mr Connolly informed that he has contacted NATO about this subject but has not got any answer. The SRD MG reports to WGFM that the studies cannot be finished without the information from NATO. This additional information will not, however, change the conclusion of the existing studies and WGFM can begin the negotiations with NATO based on the available information.

## 10. Any other business

### 10.1 Eurobalise

Eurobalise was not handled in this meeting. Eurobalise will be part of the study covering the frequency band 4.78 - 30 MHz. (Mr Scheele confirmed later that there is no further request from FM23 about Eurobalise right now.)

### 10.2 Euroloop

Mr Loder introduced docs (97)166 parts 1-3 which contain the electromagnetic (EM) limits of the railway system as whole to the outside world in compliance with the EMC directive. The Euroloop emissions according to the Siemens proposal are presented in doc (97)165. The figure shows that the Euroloop emissions in the 2-8 MHz band will be 5 - 10 dB below the EM limit. It was also noted that the loop transmits only when a train is present. Based on these it was considered that there will not be any compatibility problem related to this proposal. Mr Loder will collect these facts to one document to be discussed in the next SE24 meeting.

The other Euroloop concept from GEC Alsthom proposes Euroloop in the 2.45 GHz ISM band with a power up to 100 mW. It was agreed that a compatibility study and more detailed parameters of Euroloop are needed. The study can be part of the general compatibility study at 2.45 GHz ISM band. Mr Giles promised to inform the relevant manufacturers of the situation.

## 11. Places and dates of the next meetings

12 - 13 January 1998, Helsinki  
26-27 February 1998, ??  
(19-20 March 1998, Berlin (?) - only HIPERLANs)  
20-22 April 1998, Netherlands (22 April for HIPERLANs)

## 12. Closure of the meeting

The chairman thanked the members for their active participation to meeting. She thanked especially those who drafted the reports during and before the meeting. Finally she thanked Mr Bonds for the good facilities for the meeting and wished everybody a merry Christmas and a pleasant journey back home.

Project Team SE24  
17th meeting  
London, 17 - 18 November 1997

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