

Documents
CCIR Study Groups
Period 1986-1990

Document 8/467-E
31 October 1989
Original: English

Source: Documents 8/343, 8/410,
TEMP./8-104

IMPORTANT - CAR

Working Group 8-A

DRAFT NEW QUESTION *

RADIO LOCAL AREA NETWORKS (RLANs)

The CCIR,

CONSIDERING

- (a) that there is a need to provide effective economic communication for mobile, movable and fixed computer-based and other equipment within the workplace;
- (b) that there is a high level of interest in radio local area networks (RLANs), as demonstrated by existing products and intense research activities;
- (c) there is a need for more practical experience on the performance of RLANs designed for interior use;
- (d) that it is desirable to establish RLAN standards which are compatible with wireless or wired telecommunication systems;
- (e) that there may be a need to allocate frequency spectrum and/or establish operating guidelines to allow the orderly development of RLANs and RLAN standards to effectively utilize available spectrum,

DECIDES that the following question should be studied:

1. how can RLANs be designed to minimize the amount of planning required for their installation and operation;
2. can low-power RLAN systems be operated as an overlay service within allocated frequencies;
3. can the low-power requirement be combined with spread spectrum or other techniques to allow RLANs to be operated as an overlay service;
4. what media access control techniques are best suited for RLANs to allow multiple system operation and mobility;
5. what level of intelligence and adaptability is to be expected from the RLAN units in order to maximize efficient spectrum usage and minimize interference potential;
6. what type of antenna distribution systems provide reliable local area coverage while minimizing wide area emissions;

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** attn of S.G. 9*

7. what data rates are required for RLANs;
 8. what system architectures are best suited to RLANs;
 9. what modulation and error detection or correction techniques are best suited to RLANs;
 10. what performance objectives including outage and coverage are suitable for RLANs;
 11. how can RLANs develop and migrate to become an integral part of a personal communications network;
 12. what is the level of interference tolerated by the RLANs and what is the level of interference caused by RLANs to other spectrum users, in particular within frequency bands that are allocated to and in use by others;
 13. which frequency bands are suitable for RLANs operation;
 14. what restriction should be placed on RLAN service and coverage areas, installation and equipment, and practices to ensure that RLANs do not cause unacceptable interference to other services in and outside the confined workplace territory;
 15. how should neighbouring RLANs operate without interfering with each other;
 16. if cellular frequency reuse principles are to be used, how would channels be assigned and reused, and will dynamic channel assignment be required;
 17. how can sufficient security be provided?
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(f) that Study Group 8 has established Interim Working Parties 8/13 and 8/14 with terms of reference in accordance with Decisions 69 and 81 respectively;

(g) that Study Group 8 will participate in JIWP 10-3-6-8/1 to prepare the technical bases for issues of interest to Study Group 8 in the frequency range 2 - 30 MHz;

(h) that the existing IWPs and JIWPs of Study Group 8 do not have mandates to study issues relevant to WARC-92 on land-mobile services (all systems and services, except those covered by Decision 69), maritime-mobile services, aeronautical-mobile services, the radiodetermination and radiodetermination-satellite services, the amateur and amateur-satellite services, or studies of inter- and intra-service sharing involving these services;

(j) that Study Group 2 has established IWP 2/2 to study inter alia any proposed new space service activities in frequency bands above about 20 GHz,

DECIDES

1. that IWP 8/15 be established with the following terms of reference:

1.1 to study the technical and operational issues, including applications, available and future technology, spectrum requirements and the relevant inter-service and intra-service frequency sharing issues relating to:

- land-mobile services (all systems and services, except those covered by Decision 69);
- maritime-mobile service^s;
- aeronautical-mobile service^s (all except those covered in Decision 81);
- radiodetermination service^s;
- radiodetermination-satellite service^s;
- amateur service;
- amateur-satellite service;

1.2 to seek technical solutions within the terms of reference of Study Group 8 to any potential differences that might exist in the conclusions of IWPs 8/13 and 8/14 regarding questions such as frequency sharing and preferred frequency bands for the future public land mobile systems and the mobile-satellite services respectively;

1.3 to prepare a consolidated report to the JIWP referred to in CONSIDERING (d) above on behalf of Study Group 8 covering items 1.1 and 1.2 above using existing CCIR texts, inputs from administrations, other participants in the work of CCIR, and from other IWPs and JIWPs, and incorporating the contributions from IWPs 8/13 and 8/14 in the appropriate sections of the report;

1.4 to study other services, technical regulations and frequency bands, relevant to the terms of reference of Study Group 8, which may be included on the agenda of WARC 1992 by the Administrative Council;

1.5 to report to the JIWP referred to in (d) above in accordance with the provisions of § 2.3.8 of CCIR Resolution No. 24;

2. that the Chairman and the composition of IWP 8/15 shall be as shown in Annex I;

3. that IWP 8/15 work as much as possible by correspondence and hold one meeting to prepare a report for submission to the JIWP referred to in (d) above.