

Tentative Minutes IEEE NPRM Committee November 10, 1992
Starting at 12:15 PM

Attendance

Name	Company	Phone/Fax/Email
Donald C. Johnson	NCR	513 445 1452 fax 445 1441 Donald.C.Johnson@daytonoh.ncr.com
Ron Mahaney	Norand	319 369 3552
Burchall Cooper	LXE	404 447 4224 x3617
Wayne Moyers	Wise	408 376 0450 /0250
Chan Rypinski	LACE	415 389 6659/fax 6756 Rypinski@netcom.com
John McKown	Motorola	voice: 708 632 6551 fax: 3462 mckown@whitefish.rtsg.mot.com
Vic Hayes	NCR	+31 3402 76528 vic.hayes@utrecht.ncr.com
Jim Lovette	Apple	408 974 1418 Lovette@Applelink.apple.com

Draft document output of last night's meeting is starting document.

Wayne Moyers: Can we gain any commonality with the WARC allocations.

Jim: Only the 2.4 ISM band.

Chandos - Be cautious of the legal terms.

Larry Movshin and Henry Goldberg were suggested as good candidates to legally review the comments. Vic Hayes checked and NCR will engage Larry Movshin.

We are trying to get it done by Friday. Last time at which we can get IEEE approval.

Chandos: IEEE is out of its area of expertise when telling FCC what to do about the incumbents. Top of page 8 addresses it.

We are the perceived interferers.

Chandos: Interference is overstated in this band.

Check through previous meeting (September in Dayton) output - Document 115

Page 8, point one.

Mb/s/ha/floor/Hz parameter in document 115.

Very difficult to enforce.

Ron Mahany: Needs something to prevent garbage from going out.

Question: Do we reverse the September position - the draft does.

Discussion: Maybe power control provision will settle it. (Chandos/Wayne).

Jim: Committee hopes to adopt standards that will achieve optimum efficiency. Not be a requirement to control spectral efficiency.

John McKown proposal for page 5 B1 was accepted without objection.

"The Commission has recognized the need to provide for unlicensed devices as an advantageous and reasonable basis upon which wireless LANs can be deployed effectively. Schools, businesses, individuals and institutions who provide their own computer network services will be the most immediate beneficiaries of this unlicensed band".

At this point the group began a review of the TECHNICAL ISSUES section of the proposed response.

Point 1, page 8: The following rewording was accepted by consensus.

"1. The Commission's proposal for a spectrum efficiency formula to be applied to band usage is, we believe, at least premature and possibly may be unmerited. Spectrum efficiency can be evaluated on many different bases, some of which may not be quantifiable within the equipment authorization function. While the IEEE committee favors the development of spectrum efficient technologies, the committee recommends that no measure of spectrum efficiency should be included in the regulations."

Adaptive power control:

John McKown asked whether adaptive power control was an issue within systems or between systems? The general consensus was that it affected both.

The wording below was accepted by consensus.

"The committee agrees with the principle of adaptive (RF) power control. However, we recommend that a threshold power level, e.g. 10 dB below the maximum authorized power level, be selected, above which adaptive power control is required and below which, adaptive power control is not required.

Low power devices incapable of reaching the specified power limits should not be burdened by such a requirement."

The Channelization question:

Chan Rypinski: Refer to his FCC comments, page 2.

One data channel - 20 MHz wide. One single system design. 10 MHz to others - 20 MHz for data. Variable bandwidth to adjust to incursions from each side. Wayne supports Chan.

Jim Lovette: Does any one support the current FCC stand?
No one could fully support it.

The following was accepted by consensus.

"The committee addresses wireless LANs operating at signalling rates from 1 Mb/s to 20 Mb/s. Such data rates inherently require relatively wide RF bandwidths. As emphasized above, the proposed allocation for unlicensed operation is inadequate and this limitation bears directly on the merits of channel partitioning schemes. In this context, the committee has not yet reached conclusions regarding channelization, but it appears unlikely that either of the Commissions proposals will prove to be optimum."

Frequency Tolerances (Section 4 page 8)

The following was accepted by consensus.

"We believe that the proposed 1 ppm frequency tolerance is neither realistic nor necessary. Instead we believe that the regulations on frequency tolerance in combination with other specifications should only insure that the devices meet the out-of band emissions specification."

Out-of-band emissions.

The following was accepted.

"We recommend that the out-of-band attenuation be referenced to the actual authorized power, not to the actual in band power.

Also agreed to add some objection to the 50 dB number. To be added later."

Spectrum Smoothness:

The following was agreed by consensus.

"We agree with the specification on maximum power spectral density as appears to be the intent of section 15.253 (b). However, we recommend an explicit means of numerically smoothing the inevitable measurement peak (or correspondingly, allow a peak-to-average ratio to compensate for natural peaks in the emission envelope)."

Power Levels

The following wording was accepted.

"The committee agrees in principle that the absolute power levels expressed in the NPRM are appropriate for wireless LAN applications. However, we recommend that attention be paid to achieving a more uniform power spectral density among wireless LANs and other applications employing a disparate range of bandwidths."

At this point the group went to the start of the draft and went through it paragraph-by-paragraph improving the wording. The wording is captured in the document to be produced as output. All wording changes were approved by all present (Don, Wayne, Jim and Ron).

The session ended at 7 PM.