

Sharing the 5 GHz Band

By David A. Case, NCE, NCT

For the wireless industry, July 5th, 2003 was a very important day, especially for the Radio (RLAN) industry.

This date is important, because on that day, the adoption of numerous ITU-R resolutions and regulations were approved at the World Radio Conference.

Why were the results of WRC 2003 significant for the RLAN industry? It was the allocation of over 455 MHz of spectrum of the 5 GHz band for use by RLANs. This is a significant milestone for the RLAN community, which, in the very late 1980's began sharing part of the 900 MHz ISM [Industry, Scientific and Medical] band.

The use of RLAN has gone from providing just a wireless connection to a conference room with no LAN access to connecting rural areas to provide broadband. Also, while the data rates have increased from 384 Kbps to over 54 Mbps, the cost factors for these systems have decreased.

The increase in use of RLAN; e.g., from hospitals to factories, has increased productivity in the work place. Recent studies have shown that with the use of wireless connectivity, the RLANs provide increased worker productivity on an average of over 70 minutes a day.

However, obtaining allocation of the 5 GHz band for RLAN use was a bit of a rocky road. For over the past year, members of the United States industry and government worked together to develop a solution that would allow RLAN to operate in this band and still protect the incumbent services, which included critical national defense systems.

It was not until January 31, 2003 that a compromise was reached by the parties in the United States that were addressing the issue. This resulted in the Inter American Proposal the week after the World Radio Conference, at the CITELE [Inter Americas Telecommunications Commission] conference that addressed the allocation on its agenda.

Though the basic allocation was met with little opposition at the WRC 2003, the technical parameters for operation in the 5250-5350 MHz band produced long working sessions for those addressing this issue.

The 5 GHz decision reached at WRC 2003, to allocate 455 MHz of spectrum, is a definite win for the RLAN industry as a whole.

Editors Note: David Case served as a member of the US Delegation to the CITELE and 2003 World Radio Conference and was involved with the United States Industry and Government workgroup addressing sharing of the 5 GHz band. [Ω](#)

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"EMC Kansai 2003" Symposium Well Attended by NARTE/ Japan CRC Chapter

"EMC Kansai 2003" is the eighth annual Arts and Science Seminar in Sizuoka. The Secretariat of the NARTE/Japan Certified Review Committee (CRC) and Chapter, Mr. Shin-Ichiro Kudo, gave a lecture at the symposium. Mr. Kudo's lecture topics included NARTE's background, NARTE Certification programs, and the NARTE Japan CRC's educational program for EMC Engineers and Technicians.

Representatives of the NARTE Japan CRC attended "EMC Kansai 2003" in their continuing work to foster increased awareness and technical excellence in the EMC/EMI discipline in Japan.

NARTE applauds the achievements of the NARTE/Japan CRC chapter in their EMC awareness, education, training and certification programs.

UPCOMING EVENTS:

14 NOV 2003: One-day training for EMC Engineer candidates in Osaka.

21 NOV 2003: One-day training for EMC Technician candidates in Osaka.

11 DEC 2003: Practice Examination Session for EMC Engineers and Technicians in Osaka.

6 FEB 2004: NARTE EMC Engineer and Technician examination in Osaka & Tokyo. [Ω](#)