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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Petition for Rulemaking of the Wireless Ethernet Compatibility Alliance To Permit Unlicensed National Information Infrastructure Devices To Operate in the 5.470-5.725 GHz Band To: The Commission	RM-_____

PETITION FOR RULEMAKING

WIRELESS ETHERNET COMPATIBILITY ALLIANCE

Allan Scott, Corporate Secretary
WIRELESS ETHERNET COMPATIBILITY ALLIANCE
2570 West El Camino Real
Suite 304
Mountain View, CA 94040-1313
Tel: 650.949.6725

Eric W. DeSilva
WILEY REIN & FIELDING LLP
1776 K. Street, N.W.
Washington, D.C. 20006
Tel: 202.719.3182

Dated: January 15, 2002

SUMMARY

The Wireless Ethernet Compatibility Alliance ("WECA"),[1] pursuant to Section 1.401 of the Commission's Rules[2] hereby submits this Petition for Rulemaking seeking Federal Communications Commission ("FCC" or "Commission") allocation of the 5.470-5.725 GHz band for use by radio local area network ("RLAN') and other unlicensed service devices. Currently, 5 GHz RLAN devices are permitted to operate in 300 MHz of spectrum in the bands 5.15-5.35 GHz and 5.725-5.825 GHz. As discussed below, to adjust to global trends, to recognize recent standards developments, and to permit the public to fully enjoy today's emerging resource intensive multimedia applications — thereby enhancing educational, medical, business and other services — WECA believes RLAN and other 5 GHz unlicensed devices must be allowed to utilize additional spectrum. Moreover, the extension of the unlicensed 5 GHz bands to 5.470-5.725 GHz can be accomplished easily, without harmful interference to other primary users, by a simple expansion of the 5.25-5.35 GHz technical rules to cover operations at the new frequencies. WECA accordingly requests that the Commission adopt its proposed rule changes and accommodate the inevitable explosion of demand for broadband mobile wireless data systems.

[1] WECA is an industry organization that promotes and certifies interoperability of IEEE 802.11 High Rate wireless LAN products.
[2] 47 C.F.R. § 1.401.

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PETITION FOR RULEMAKING
OF THE
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I. BACKGROUND

A. The FCC's Original Allocation for Unlicensed Use of the 5 GHz Bands Offered Strong Public Interest Benefits By Recognizing the Vast Potential of Unlicensed High Speed Network Devices

Access to information through deployment of a broadband infrastructure throughout the country is a critical goal of the Commission and the U.S. Congress. It is certain that ubiquitous broadband deployment will bring valuable new services to the public, stimulate the economy, improve national productivity, improve educational opportunities, and advance economic opportunity for more Americans. As Chairman Powell has recognized, there must be multiple broadband platforms – including wireless systems.[3]

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[3] **See Chairman Michael K.** Powell, *Digital* ***Broadband*** **Migration,** *Part II* (visited **Jan. 15, 2002)** <http://www.fcc.gov/Speeches/Powell/2001/spmkp109.html>.

It is evident today that wireless access and interchangeability of data at high data rates are critical to employ effectively and fully existing and future technological and related resources. For example, wireless access is particularly important to furnish students, whether in rural or urban areas, with access to the information that provides for a strong educational foundation; to permit health care facilities to offer more cost-efficient services; to promote an environment in which businesses may thrive and thereby remain competitive in the world markets; and to enhance the quality of people's leisure time.

It is also increasingly evident that wireless technologies themselves are not merely adjuncts to the wired network, but also possess the inherent ability to permit creation of entirely new multimedia capabilities with significant potential public benefits. For example, the use of wireless 802.11 networking at certain technical conferences has provided an information sharing and dissemination capacity — and a means for "group think" — that is simply inconceivable with wired technologies. Even more stunning has been the creation of community-based wireless networking using the IEEE 802.11 specification. While it is commercially understandable and reasonable for an airport, a hotel, or Starbucks, for example, to implement a publicly-accessible wireless network available on a paid basis (as many have), it is surprising that *free* wireless access services have been introduced by individuals and community networking enterprises across the nation. The majority of these services have flourished using the IEEE 802.11b specification. Similarly, services based on the 802.11a standard, which provides even higher data transfer rates, will undoubtedly promote the proliferation of "freenets" at **5** GHz as well, and will better satisfy the ever-increasing bandwidth demands of Internet users.[4]

[4] Indeed, a website (www.wifinder.com) already exists to assist users in finding publicly accessible 802.11 networks.

The Commission should be commended for anticipating the need –and providing - for a robust unlicensed wireless industry when it adopted the 5 GHz unlicensed rules. The FCC paved the way for broadband wireless access by allocating spectrum to 5 GHz devices in a landmark decision issued on January 9, 1997. In that order, the Commission amended Part 15 of its rules and made available three 100 MHz bands at 5.15-5.25 GHz, 5.25-5.35 GHz and 5.725-5.825 GHz for unlicensed use.[5] The Commission stated that, in making this spectrum available, the spread of these devices would encourage the expansion of RLANs and facilitate wireless access through short-range, high-speed wireless digital communications. According to the Commission, the new rules would also foster the development of a broad range of new devices, stimulate the growth of new industries and promote the ability of U.S. manufacturers to compete globally by enabling them to develop unlicensed wireless products for the world market. Yet, as discussed further herein, additional spectrum is necessary to fulfill completely the goals enumerated in the Commission's 1997 order and to ensure that wireless systems are fully enabled to provide one of the many avenues for broadband communications.

B. RLAN Technologies Have Undergone Significant Development and Transformation Since the Original 5 GHz Allocation

The data networking world has evolved considerably since 1997 when the original 5 GHz allocation was adopted, and wireless data network access technologies have become critical and necessary for broadband communication. In response, the computer and wireless industries have actively pursued improved standards for RLANs, as exemplified by the history of IEEE 802.11 itself. The Institute of Electrical and Electronics Engineers, Inc. ("IEEE") completed in 1997 the

[5] Even at the early date of 1996, as noted in its original petition for allocation of spectrum at 5 GHz, the Wireless Information Networks Forum ("WINForum") recognized that additional spectrum beyond the proposed 300 MHz should be kept in reserve to meet future needs, although even WINForum understated the ultimate needs. SUPERNet Petition, at 15 n.4.

IEEE 802.11 standard for RLANs, which was intended to provide respectable performance and maximize interoperability between various brands of wireless LAN devices. The original IEEE 802.11 standard offers a maximum data rate of only 2 Mbps, however, which was barely adequate in 1997 and is patently inadequate for today's broadband demands. In response to the need for higher data rates, the IEEE ratified in 1999 two improved standards that are based on the original 802.11 standard. The IEEE 802.11b standard, which has enjoyed considerable market acceptance, supports data rates of up to 11 Mbps in the 2.4 GHz band. IEEE 802.11a, which incorporates a Physical Layer specification that will allow increased interoperability among various RLAN devices, operates in the 5 GHz band, and supports data rates of up to 54 Mbps.

Similarly, the European Telecommunications Standards Institute ("ETSI") has developed the High Performance Radio LAN 2 ("HIPERLAN/2") standard, which is an evolution of the original 5 GHz HIPERLAN specification. In many respects, the HIPERLAN/2 standard is similar to the IEEE 802.11a specification, and the industry generally believes that the two standards will eventually become physically compatible, at a minimum, or merge completely. Thus, the Commission should be commended for allocating spectrum in the 5 GHz band for use by Unlicensed National Information Infrastructure ("U-NII") devices because, in the words of the Commission, it "permit[s] U-NII devices to be compatible with the European HIPERLAN and allow[s] American industry flexibility to create products for both markets."

WECA is an international trade association formed in 1999 to promote the adoption and commercialization of products built according to the IEEE 802.11 RLAN specifications. Membership in WECA is open to all companies that support the RLAN standards, and current members include virtually all of the major radio manufacturers producing wireless network

equipment and marketing the products in the United States.[6] The membership continues to expand and stands, at the time of this filing, at 135. WECA's unique access to these vast resources renders it uniquely positioned to foretell the capacity needs and potential of 5 GHz devices.

II. RLAN DEVICES OPERATING IN THE 5 GHZ BAND PROVIDE SUBSTANTIAL BENEFITS TO USERS AND, IF SUFFICIENT CAPACITY IS AVAILABLE, WILL FORM A CRITICAL PART OF BROADBAND DEPLOYMENT IN THE COMING YEARS

The same policies that supported adoption of the 5 GHz band allocation in **1997** now support allocation of additional spectrum. **As** discussed below, RLAN devices at 5 GHz provide a unique synergy of key characteristics — broadband transmission, low cost, mobility, flexibility, ease of use, and adherence to global standards — that are and will be critical to meeting domestic end users communication needs. Moreover, the ability to provide these benefits without causing harmful interference to existing users provides the FCC with the opportunity to realize these benefits for the public virtually without societal cost.

A. The RLAN Devices Supported by the 5 GHz Band Provide Key Public Interest Benefits That Cannot Be Met Through Other Means

Devices operating at 5 GHz offer broadband mobility. flexibility, ease of use. and cost attributes that are unmet by any other existing technologies. No other existing system, or system under contemplation, can provide the 54 Mbps capabilities of IEEE 802.11a and HIPERLAN/2 on a mobile basis. These capabilities include the integration of voice, data. high quality audio video, and high resolution digital picture data in a packet-based network. In addition, entire

[6] **A** complete membership list is available at WECA's website, www.wi-fi.org. Current members include, among others, 3Com, Acrowave, Agere Systems, AMD, Askey, Atheros, Cisco, Colubris, Connexion by Boeing, Dell, Gateway, Global **Sun,** Intel, Intersil, Melco, MobileStar, Mobilian, Motorola, NextComm, Nokia, Philips, Proxim, Sony, Symbol, Texas Instruments, and Z-Com.

wireless systems can be deployed rapidly and inexpensively because they require no end user premises wiring. As evidenced by the widespread deployment of narrower bandwidth 802.11b networks, the flexibility inherent in wireless access enable networks to exist that could not be contemplated using traditional wireline services. Yet, devices operating under the recognized industry 802.11a standard provide higher bandwidth and much greater network stability and key benefits through wide global acceptance, increasing convenience for traveling users, providing economies of scale in production, and raising the probability that the standards for such devices will be incorporated seamlessly into user applications. Furthermore, because they are license-exempt and low cost, 802.11a devices are consumer-oriented, not a high cost boutique device available only to high-tier business users.

The combination of these unique attributes allows the deployment of a wide range of new and improved capabilities. As broadband deployment has suffered through a fitful beginning, however, the tension between two emerging trends has become increasingly apparent. The first trend is that wireless access to multimedia applications and information enhances productivity and efficiency in all sectors of work and life. On the other hand, multimedia and other resource-intensive applications require high bandwidth transmission mediums that are both flexible and economical in order to provide adequate local, wide area, and long distance digital communications. Because wireless communications are currently limited by a lack of bandwidth to low data transfer rates, it is difficult to utilize effectively the current state-of-the-art power applications, let alone any future applications, via wireless devices.

Although computers and modem communications have already proved beneficial to every American, today's broadband applications offer only a glimpse of the future potential of wireless communications. Computers are vital tools in modem society, fully able to automate

mundane tasks such as sorting and filtering huge databases. These machines are capable of more, however. The communications networks offered by the wireline industry are filled with a wealth of information within the grasp of most Americans. Unfortunately, for the most part, access to this information continues to be rather limited due to a lack of high rate, broadband non-carrier based access. Society in general has become much more mobile. While portable computers contain greater computing power today than ever before, it is still not possible to access the necessary information through these powerful machines because the communication links between portable computers and the wired world do not provide sufficient bandwidth

Concrete examples of the inability of today's networks to cope with existing demand for mobile broadband access requirements are evident in virtually every aspect of life:

- In schools throughout the United States, computers are increasingly being connected via one or more networks. These networks permit the simple distribution of teaching material and provide access to private and public libraries and other vast resources of information. They also encourage greater interaction with teachers and among students, and allow the sharing of assignments and research results. The trend at educational institutions, which is likely to intensify, is that students are highly mobile. Thus, wired networks do not provide the flexibility necessary to educational institutions. Rather, high-speed wireless networks are the only means by which such institutions can satisfy their need for mobility and flexibility in order to advance and add value to today's educational experience.

- The use of computers by health organizations is also constrained by the inflexibility of wired networks, resulting in increasingly expensive medical care and hospitalization. Some of these costs are caused by the complexity of the healthcare systems. The efficiency of healthcare providers can he improved greatly by giving the medical staff on-the-spot, real-time access to patient data, including x-ray and MRI images, video recordings, medical charts and other records necessary for group diagnosis. Such group collaborations will permit better and more efficient diagnosis of complex cases without the need for the medical experts and other staff to physically convene. For example, a healthcare team could call upon an expert in a particular field to aid in the diagnosis, in real-time, even if the expert is located in another city, or even nation. Real-time consultations among health care professionals cannot he realized, however, if the staff or the experts are encumbered by desktop computers or other non-portable devices. Rather, group diagnosis in real-time is dependent upon wireless devices linked to the wired networks through powerful and reliable broadband connections.

- Broadband wireless access will also increase productivity and efficiency for a broad

range of employees in various business settings. Modem trends in office organization, including the emphasis on work groups, require flexibility in the location of professional and support staff. Additionally, administrative and managerial tasks are becoming increasingly complex, demanding frequent ad-hoc meetings in places where personnel does not have access to stationary computers. Also, the financial industry is providing its customers more control over their accounts, and financial institutions must therefore be capable of redesigning their patterns of communication, which requires both mobility and flexibility.

- Similarly, although manufacturers have for many years been using computers to aid in both design and development, as well as in production, they will realize even greater benefits by implementing wireless access to their networks. The current trend in the manufacturing industry is to transfer much of the computer processing power away from centralized systems to more flexible production systems. This has created a need for integrated, robust and high capacity network communications between production floor systems. Wireless devices are ideal for these applications.

- Because unlicensed fixed wireless infrastructure is inexpensive to deploy, these devices can fill the gap between asymmetric DSL, coaxial cable, and fiber facilities, particularly since the improved IEEE standards offer great network stability. **RLAN** service providers could partner with wireline ISPs to provide Internet Service and business networks, particularly since a **RLAN** system is flexible enough to allow service providers to target precisely areas not reached by DSL or cable access. **A** RLAN system is therefore well positioned as a cost-effective, rapid deployable last mile solution for broadband access.

Each of these benefits can be realized with little or no societal cost. Throughout the U-NII proceedings related to the 1997 order, the Commission and industry proponents of U-NII devices expended considerable amounts of time and effort to ensure that the new devices would not cause harmful interference to the primary users in the **5** GHz bands, which include aeronautical radionavigation and maritime radar; fixed-satellite MSS feeder links; active earth exploration-satellite and space research; amateur radio; radiolocation; government radar; and Industrial, Scientific, and Medical ("ISM) equipment. The Commission noted in its 1997 order that 5 GHz devices would be able to share the spectrum with the existing primary services without causing radio interference to those services, and it imposed only the minimum technical rules necessary to prevent interference to other services in order to ensure that the spectrum could be used efficiently and to permit significant flexibility in their design and operation. Given

that the expansion band sought by **WECA** is populated by the same classes of primary users, the benefits of mobile broadband technologies, including IEEE 802.11a, can be achieved by merely re-mining existing spectrum allocations.

B. Allocation Actions, as Well as Participation In International 5 GHz RLAN Efforts, Is Critical To Ensuring Domestic Users' Ability To Benefit from Advanced Communications Devices at 5 GHz

The FCC stated in its 1997 order that it allocated **300** MHz to help establish U.S. leadership in an ever-increasing global market for telecommunications products. The 1997 order also shows that the FCC provided access to the 5 GHz band to permit unlicensed devices to be compatible with the European HIPERLAN and to allow U.S. industry flexibility to create products for both markets. These policies now provide even greater support for allocating additional spectrum at 5 GHz.

It is increasingly clear that a high quality experience for users of wireless technology requires more spectrum than currently provided by Part 15 of the FCC rules, particularly since the demand placed on the current bands by streaming video, audio and other multi-media presentations will only increase. Thus, to maintain its leadership in the global market, to allow U.S. manufacturers to produce compatible products, and to meet the other goals of the FCC's 1997 order, the FCC must encourage the growth of the domestic market for 5 GHz devices and other RLAN products by allowing these services to develop and mature in the United States. This goal can only be achieved if the Commission allocates additional spectrum for extended broadband access.

Moreover, in the 1997 order, the FCC said that it purposefully allocated the **5** GHz bands to align the domestic spectrum allocation with the spectrum available for European HIPERLAN systems, The European Union has increased the spectrum available for HIPERLAN systems to

include the same frequency band requested by WECA in this petition. Rather than following the development of the EU, the United States should take the lead in the development of RLAN technology by allocating additional spectrum rapidly, with the same basic technical requirements that already exist in Part 15.

The WRC process, in fact, dictates that the U.S must take concrete steps to implement a more proactive and forward-looking plan for unlicensed devices at 5 GHz. 5 GHz spectrum allocation is a global issue. Indeed, WRC03 Agenda Item 1.21 specifically states that the technical and regulatory requirements of wireless multimedia applications should be studied by ITU-R with a view to facilitate global harmonization. The WRC03 will consider the progress of these studies to devise an agenda item for WRC06, which will focus on global spectrum allocation issues and regulatory work. It is clear that international cooperation with respect to 5 GHz devices and spectrum allocation is progressing rapidly. On April 20, 2001, the Commission stated in a draft preliminary view on Agenda Item 1.21 that the view of the United States on these issues "will be developed when more information is available from the ITU and other entities.'" This approach is contrary to the express goal of the Commission to provide U.S. manufacturers an opportunity to lead the development of 5 GHz devices. Rather than waiting fur other countries to develop their positions on and demands for spectrum in the 5 GHz band, the FCC should allocate additional spectrum immediately to allow U.S. manufacturers to maintain its world leading position in the development and sales of 5 GHz devices.

Additionally, WRC03 Agenda Item 1.5 seeks to consider regulatory provisions and spectrum requirements for new and additional allocations to the mobile, fixed, Earth exploration-satellite and space research services, and to review the status of the radiolocation service in the

[7] *IWG-I Draft Preliminary Views on WRC-03* (visited Jan. 15,2002) <http://www.fcc.gov/wrc-03/files/docs/advisory_comm/wac013.doc>.

frequency range 5150 to 5725 MHz. Clearly, the interests of the industries that develop, promote and sell RLAN products are to be reviewed as part of this process, and **WECA** has indeed participated actively to ensure that these interests are considered as part of the WRC03 process started by Agenda Item 1.5.

As noted above, in addition to the ITU-supported studies, organizations within the European Union are working on an agreement on critical aspects of HIPERLAN/2. The HIPERLAN/2 Global Forum is finalizing a report that estimates spectrum needs for wireless LANs and recommends that 540 MHz be allocated to RLANs in the 5 GHz band.[8] It is quite possible that the EU organizations will actively promote the HIPERLAN/2 standard at the WRC03 and **WRC06**. Consequently, the WRC03 will be critical in establishing U.S. leadership in the global wireless network market. The conference will also be important for establishing a home for IEEE 802.11a products as well as developing sound interference mitigation solutions for other spectrum users. The U.S. needs to provide leadership in the world, particularly in the important field of telecommunications. Thus, it is vitally important that the FCC protect American interests by allocating additional 5 GHz spectrum immediately

III. A COMPREHENSIVE SPECTRUM ANALYSIS DEMONSTRATES THAT ADDITIONAL 5 GHZ SPECTRUM WILL BE NECESSARY TO MEET RLAN END USER DEMANDS IN THE NEAR TERM

The European Telecommunications Standards Institute ("ETSI") has been developing the HIPERLAN/2 standard over the past couple of years. In support of that effort, the HIPERLAN/2 Global Forum ("H2GF") undertook and completed a study ("H2GF study") sponsored by the ETSI. This study demonstrated that there will be a need for 540 MHz of spectrum by 2010 for use within the European Union. Due to the similarity of applications envisioned for 5 GHz U.S.

[8] Although HIPERLAN/2 has currently obtained a bandwidth of only 455 MHz, the HIPERLAN/2 study shows that, by the year 2010, RLANs would require at least 540 MHz.

devices and the HIPERLAN/2 devices, as well as the similarity of the assumptions made in the document regarding deployment densities and environments, the conclusions of the ETSI study should be a reliable indicator of IEEE 802.11a spectrum requirements for the U.S. Today, only a total of 300 MHz has been allocated to RLANs in the United States, leaving a spectrum capacity shortage of 240 MHz.

As the H2GF study details, RLANs will be deployed in three different operating environments. First, they will be used in corporate office building networks, where wireless devices may be substituted for wired LAN devices. This environment requires high speed data rates, and the wireless devices will ordinarily be stationary while in use. Second, there will be public wireless access networks, where battery driven devices will he used in most cases, requiring economic power consumption. Although these devices will be used both indoors and outdoors, they will not require the same high Quality of Service ("QoS") as those used in an office environment. The density will be lower than that of a corporate network, while the geographic area will be greater. Finally, structured wireless networks can link various appliances in home area networks. These networks generally will cover a smaller geographical area than the corporate network, but will require high bandwidth for streaming video, audio and other multimedia information. Spreading wireless LAN energy over a wider spectral band will allow for denser LAN deployment and a greater number of channels, which will allow wireless devices to be employed in all three environments discussed above. Such efficient spectrum use is also in keeping with the policies promulgated by the Commission to ensure the public receives the most benefit from the use of the electromagnetic spectrum.

A key condition for market acceptance of RLAN devices is the availability of sufficient spectrum to allow a high quality user experience in the presence of other uncoordinated users.

Based on careful analyses of these deployment scenarios, the H2GF study indicates that wireless LANs will require at least 540 MHz of spectrum, regardless of the environment in which they are deployed. Given that only 300 MHz is allocated to U-NII devices domestically, ensuring the availability of spectrum now to meet future demand is sound public policy. Providing more spectrum is even more imperative when considering that the ETSI estimate does not consider the requirements for adjacent channel guard bands, which could add between **5%** and *25%* to the need for spectrum. By acting now to support the capacity needs of future wireless users, the FCC can minimize the number of separate bands it allocates at 5 GHz, minimize the balkanization of spectrum into a multitude of varying bands, and limit the impact of inefficient guard band allocations.

IV. ALLOCATION OF ADDITIONAL SPECTRUM AT 5 GHZ WILL NOT CAUSE HARMFUL INTERFERENCE TO OTHER CO-CHANNEL USES

A. Consistent with Part 15 Obligations, Unlicensed Devices Will Not Cause Harmful Interference to Other Recognized Radio Users

The FCC emphasized in its 1997 order the need for 5 GHz unlicensed devices to share spectrum with primary services without causing harmful radio interference to those services. Thus, WECA has recognized that RLAN devices, as Part 15 users, must be engineered so as to avoid harmful radio interference to any primary services. Nevertheless, the FCC decided in its U-NII order to set only the minimum technical standards necessary to mitigate interference and ensure efficient spectrum use. The rules specify power limits, out-of-band emission limits, and a basic "listen-before-talk" protocol standard. WECA agrees with this approach. In addition, WECA believes that the U.S. should support the efforts to develop realistic interference mitigation criteria.

B. WECA Suggests that the Core U-NII Band Rules Are Sufficiently Flexible to Accommodate the Contemplated FUAN Usage of Additional 5 GHz Bands

The current U-NII rules have now been in effect for a several years, which has allowed WECA members to develop experience with RLAN devices. Based on this practical and useful experience, **WECA** believes that the current rules governing the operation of devices at 5.25-5.35 GHz are most appropriate for operation in the expanded band at 5.470-5.725 GHz. Specifically, the radio uses at 5.470-5.725 GHz are most similar to the operations U-NII devices are required to protect at 5.25-5.35 GHz. Unlike the 5.15-5.25 GHz band, where U-NII devices are restricted to lower powers and indoor-only operation, MSS feeder uplinks are not present at 5.470-5.725 GHz, and no basis exists for imposing the stricter lower band U-NII rules. Similarly, devices that will operate at 5.470-5.725 GHz will not have to contend with overlapping higher powered ISM uses, and higher limits established for 5.725-5.825 GHz U-NII devices may inadvertently limit the capacity of RLAN networks by increasing the potential for intraband interference with other U-NII devices. On balance, the 5.25-5.35 GHz band rules are most well-adapted to meeting the needs of both primary users and U-NII devices for the 5.470-5.725 GHz band.

C. Consistent with Part 15 Obligations To Accept Interference, There Is No Reason To Believe that Unlicensed 5 GHz Devices Cannot Function In the Presence of Other Recognized Users

Because unlicensed services are not primary, WECA has acknowledged that its RLAN devices will have to accept interference. WECA understands that the United States Government operates high-powered radar systems in the upper portions of the 5 GHz band. These radar systems, which emit short, high power bursts, will cause severe interference with any unlicensed 5 GHz devices located nearby.[7] However, radar interference is generally short-lived, and overall

[7] **As** noted by the FCC in a note to 47 C.F.R. § 15.407(a)(3), a party **seeking** to employ **a** U-NII device to provide

RLAN communications capacity is unlikely to be adversely affected because the IEEE 802.11a standard allows RLAN devices to recover quickly from short bursts of interference, such as those emitted by high-powered radar systems. Thus, WECA does not view spectrum sharing with the Government radar systems as a substantial impediment to the development of RLANs. WECA will continue to work with NTIA to ensure the mitigation of harmful interference between primary services and RLAN devices. Indeed, incorporation of particular mitigation techniques may permit RLAN devices to operate at power levels greater than those envisioned in the existing U-NII Band rules.

critical communications services should first determine whether there are any nearby Government radar systems that could adversely affect **the** operation of U-NII devices.

V. CONCLUSION

For the foregoing reasons, WECA respectfully requests the Commission to issue a notice of proposed rulemaking to amend Part 15 of the rules and authorize the use of the 5.470-5.725 GHz band by U-NII devices. The proposed rules should merely extend the current rules governing the operation of U-NII devices in the 5.25-5.35 GHz band to the newly authorized band. WECA also requests that the Commission act expeditiously in this matter, in view of the fact that the requested spectrum segment is on the agendas of WRC03 and WRC06 and because a defined U.S. position on the use of this spectrum segment will help to clarify the position of U.S. based manufacturers with respect to ongoing European HIPERLAN/2 developments and the development of the WRC03 and WRC06 Agenda Items.

Respectfully submitted,

WIRELESS ETHERNET COMPATIBILITY ALLIANCE

By:_____

Allan Scott, Corporate Secretary
WIRELESS ETHERNET
COMPATIBILITY ALLIANCE
2570 West El Camino Real
Suite 304
Mountain View, CA 94040-1313
Tel: 650.949.6725

Eric W. DeSilva
WILEY REIN & FIELDING LLP
1776 K. Street, N.W.
Washington, D.C. 20006
Tel: 202.719.3182

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