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

In the Matter of	)	
	)	
Petition for Rule Making of the Cellular Telecommunications Industry Association Concerning Implementation of WRC-2000: Review of Spectrum and Regulatory Requirements for IMT-2000	)	File No. RM-9920

COMMENTS OF AT&T WIRELESS SERVICES, INC.

Pursuant to the Commission's Public Notice, released July 28, 2000 in the above-captioned proceeding,[1/] AT&T Wireless Services, Inc. ("AT&T") hereby submits its comments on the petition of Cellular Telecommunications Industry Association ("CTIA") relating to the implementation of third generation ("3G") wireless services.[2/] In its petition, CTIA asks the Commission to initiate a rulemaking proceeding to designate additional spectrum for 3G wireless services in a manner consistent with the decisions made at the International Telecommunication Union's ("ITU") 2000 World Radiocommunication Conference ("WRC-2000"). AT&T agrees with CTIA's position that harmonization with international decisions governing International Mobile Telecommunications 2000 (IMT-2000) services is necessary to ensure the competitiveness of the United States wireless industry and to provide consumers with full and cost-effective wireless service. AT&T therefore urges the Commission to take all necessary steps to make such spectrum available at the earliest possible date.

[1/] Public Notice, Comment Invited on Third Generation Wireless/IMT-2000 Petitions, RM-9911 and RM-9920, DA 00-1673 (released July 28, 2000).

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I. INCREASED DEMAND FOR WIRELESS SERVICES REQUIRES ADDITIONAL SPECTRUM FOR 3G SERVICES

There is every reason to believe that the astonishing global growth in use of wireless services cited by CTIA will also drive the market for 3G services.[3/] Indeed, recent research suggests that 1.2 billion users worldwide will use mobile data services by 2005, with 224 million subscribers in the United States alone.[4/]

AT&T's own experience suggests the validity of such growth expectations. In the second quarter of this year alone, AT&T added 532,000 subscribers to its customer base. More indicative of the demand for 3G services, however, is the rapid growth of AT&T's new PocketNet data service. PocketNet combines AT&T's wireless digital voice service with the ability to access e-mail and the Internet through a handheld unit.[5/] Since its introduction a little over three months ago, 80,000 customers have subscribed, which means that one new PocketNet customer signs up every 33 seconds. This type of growth clearly demonstrates that the demand for wireless data services is strong.[6/] Although wireless providers have become considerably more efficient in their use of spectrum, and new technologies promise even better efficiency, the expected steep increase in demand, especially for data/internet services, has led AT&T to conclude that additional spectrum capacity will be needed within five to ten years.

2/ Petition for Rule Making of the Cellular Telecommunications Industry Association Concerning Implementation of WRC-2000: Review of Spectrum and Regulatory Requirements for IMT-2000, RM-9920 (filed July 12, 2000) ("CTIA Petition").

3/ CTIA Petition at 2-3.

4/ See http://www.the-arc-group.com/index_wi2k.html (previewing the release of a report regarding telecommunications industry growth).

5/ AT&T Wireless Services Web Site, http://www.attws.com/business/gov/explore/plans-phones/pocketnet/faq.shtml.

6/ In Japan, NTT DoCOMo's "imode" service recently passed the 10 million subscriber mark, and is currently adding customers at the rate of 1 million per month.

II. THE COMMISSION SHOULD IDENTIFY AND ALLOCATE SPECTRUM FOR 3G SERVICES CONSISTENT WITH DECISIONS MADE INTERNATIONALLY.

In an effort to meet the challenges presented by strong consumer demand for wireless services, the Commission has announced its intention to allocate 90 MHz of spectrum that could be used, in part, to provide IMT-2000 services.[7/] Although this additional spectrum is needed, the Commission must now ensure that it is allocated in the most efficient and pro-consumer manner feasible. In particular, the Commission must make a serious effort to harmonize U.S. spectrum allocations for 3G services with international bands and ensure that economically efficient allocations of spectrum are not unnecessarily limited by the imposition of a domestic spectrum cap. As noted by one analyst, "[t]he lack of a coherent, forward looking spectrum management policy and process could hinder U.S. wireless operators' ability to compete" in the provision of advanced global communications services and harm consumers by slowing development of services and products.[8/]

A. The United States Must Harmonize Domestic Spectrum Use with International Use.

As is the case with most economic matters today, the United States can no longer operate independently in setting policies that affect the telecommunications industry generally or, more specifically, the provision of wireless services in this country. Wireless consumers must be able to roam globally, not just from state to state, and manufacturers must be able to design equipment that will operate anywhere in the world. As the next generation of wireless services is rolled out, the Commission has a unique opportunity to ensure that the United States keeps pace

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[7/] See In the Matter of Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, Policy Statement, FCC 99-354, at ¶ 23 (released Nov. 22, 1999).

[8/] Rudy L. Baca, U.S. Disadvantaged by Spectrum Scarcity, The Precursor Group: Independent Research (July 25, 2000).

with the rest of the world. Indeed, by harmonizing IMT-2000 frequency bands, the United States could regain its leadership position in the international community on spectrum allocation policies, improve services and prices for consumers, and provide the domestic wireless industry with a fair chance to compete in the global economy.

As indicated by CTIA, the benefits of harmonization are numerous.[9/] Consumers will benefit from increased access, global roaming, new products, and less expense.[10/] Specifically, the use of the same bands domestically and internationally for 3G services will permit subscribers to use a single handset regardless of whether they are in the United States or abroad. In the absence of harmonization, subscribers would be forced to carry multiple wireless phones, imposing considerable expense and inconvenience -- as they do in trying to roam globally today.

In addition, manufacturers increasingly will concentrate their efforts on developing equipment for those areas of the world that operate on the same bands (i.e., Europe and Asia) in order to realize the production economies associated with larger markets. For domestic operators and consumers, this means that equipment for the U.S. market will be produced later or not at all, depriving them of the newest and best features and services. Venture capitalists and other wireless investors are similarly likely to target these more receptive areas in preference to an inhospitable domestic environment, thus exacerbating the overseas shift in technology development and manufacturing.[11/] Without harmonization -- or worse, with further fragmentation of the bands available for 3G use across multiple countries -- the U.S. risks

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[9/] See CTIA Petition at 2, 4-8.

[10/] Id. at 6.

[11/] Stephen Labaton, The Battle of the Bandwidths; Space is Coveted as Wireless Expands, N.Y. Times, Aug. 11, 2000 at C1; Rudy L. Baca, U.S. Disadvantaged by Spectrum Scarcity, The Precursor Group: Independent Research (July 25, 2000).

recreating the unacceptable situation faced by the domestic public safety industry; multiple bands and little ability to interoperate.

This problem cannot be solved, at least in the near term, by the use of software defined radio technology.[12/] Such devices are unlikely to be commercially available for more than ten years and will require further time to be fully accepted in the marketplace.[13/] Although multiband phones are likely to be built, their development would also require time and impose extra expense on consumers. Moreover, such attempts appear to treat the symptoms of non-harmonization rather than solving the problem itself.

The inability of the domestic wireless industry to offer consumers the benefits of harmonization will cause the U.S. wireless industry to fall behind the rest of the world.[14/] Not only will American industry be hampered by a weakened domestic market due to the service limitations discussed above, but the resources it will be forced to devote to overcome or minimize problems stemming from the lack of harmonization will detract from its ability to develop fully international markets.

The Commission suggested in its Spectrum Policy Statement that it would consider allocating for wireless use (including 3G services) spectrum from the 1710-1755 MHz band paired with the 2110-2150 and 2160-2165 MHz bands.[15/] Such a pairing at this time is premature. It is unlikely that other countries would adopt this pairing in the short term because the 1710-1755 MHz band is currently used by some second generation systems, paired with

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[12/] Reply Comments of AT&T Wireless Services, Inc. to FCC Notice of Inquiry Regarding Software Defined Radios, ET Docket No. 00-47 (July 14, 2000).

[13/] Id. at 2-3.

[14/] CITA Petition at 6-8.

[15/] See CTIA Petition at 7-8 (citing In the Matter of Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, Policy Statement, FCC 99-354 (released Nov. 22, 1999)).

1805-1850 MHz. In addition, the 2110-2170 MHz band will probably be paired with 1920-1980 MHz in many countries to provide the first 3G services. In essence, the Commission's proposed pairing would take frequencies from two different band/channelization plans and combine them in a way that is unlikely to occur in the rest of the world.

As CTIA explains, it is imperative that the Commission conduct a comprehensive review of existing and future uses of these bands to determine the feasibility of allocating them for IMT-2000 use.[16/] The fact that these bands are already being used for other purposes should not end the inquiry.[17/] Instead, the Commission should explicitly weigh the costs and benefits of using this spectrum for 3G services, taking into account such issues as the extent and purposes of the bands' current uses, the possibility of band sharing, and the cost, feasibility, and timing of shifting current users of these bands to other bands.[18/] In making any allocation decisions, the agency should consider the views of the U.S. wireless industry, the opinions of current users of the targeted bands, and any findings made and standards proposed by the ITU body (Working Party 8F) assigned to study the overall objectives and technical implementation of the IMT-2000 and future systems. A full and concerted effort by the Commission to harmonize its spectrum allocation with the international standards is particularly important in light of the fact that the bands identified at WRC-2000 resulted from a compromise offered at the conference by the United States. To adopt decisions now that are contrary to WRC-2000's outcomes would not only damage the U.S. wireless industry's competitiveness and injure American consumers, it

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[16/] Id. at 6-11.

[17/] Id. at 9-11.

[18/] Id.

would substantially impair U.S. leadership in this area and its ability to shape future international decisions affecting its interests.[19/]

The Commission's study of these issues must begin immediately. As noted by CTIA, review of the above issues, adoption of any conclusions, and full implementation of new standards will take years.[20/] Studies must be conducted and the necessary rulemakings completed before any spectrum becomes available. Should the federal government decide to transfer the 1755-1850 MHz band for private sector use or should the commission decide to reallocate the 2500-2690 MHz band to IMT-2000 use, the relocation of existing users to different bands and the issuance of new licenses would take substantial time.[21/] In addition, any further delay in addressing these issues would be especially harmful in light of the ongoing consideration of these issues by the ITU.[22/] A coherent strategy and active participation in the international discussions regarding IMT-2000 spectrum would permit the United States to help shape international decisions rather than simply adopting or rejecting them after their promulgation.

B. Imposition of the Commission's Spectrum Cap Will Harm the U.S. Wireless Industry and Consumers.

Commission consideration of spectrum allocation should include a thorough review of the application of any spectrum cap. The Commission's spectrum cap generally prevents any individual carrier from accumulating more than 45 MHz of wireless spectrum in urban and

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[19/] See CTIA Petition at 2, 4, 10-11.

[20/] Id. at 6-11.

[21/] See id. at 9-10.

[22/] Id. at 5-6, 7 n.14 (citing Studies To Consider Requirements for the Future Development of IMT-2000 and Systems Beyond IMT-2000 as Defined by INU-R, WRC-2000, RES[GT Plen-2/3]). Other countries have already made proposals regarding the use of the newly identified bands for IMT-2000 in conjunction with the work of Working Party 8F. The United States, by contrast, has no proposals.

suburban areas and 55 MHz in rural areas.[23] Although the spectrum cap was initially intended to protect nascent competition in wireless markets by preventing the exclusion of new competitors by licensees, this restriction is no longer necessary to ensure robust competition and it has resulted in substantial market inefficiencies.

The negative impact of spectrum caps is becoming painfully apparent as the 3G market develops. Due to an explosion in demand for its wireless services over the past several years, the existing spectrum allocated to AT&T is needed to satisfy subscriber growth for first and second generation services. Without additional spectrum, AT&T will have considerable difficulty in rolling out 3G wireless applications and advanced broadband services. Thus, even if the Commission allocates new spectrum for IMT-2000 as discussed above, application of the spectrum cap would dramatically hinder AT&T's and other carriers' ability to participate in these new markets.

In this regard, the spectrum cap may have the effect of inhibiting the ability of domestic carriers to compete internationally, as well as at home. Foreign carriers, who generally are not subject to such rules, will be able to develop broadband, advanced, or 3G services more quickly and efficiently than their domestic counterparts. This, in turn, may permit foreign carriers to control technology choices and utilize economies of scale and scope denied to domestic industry. Like the failure to harmonize spectrum internationally, application of a domestic spectrum cap would force the U.S. wireless industry to take a backseat to European and Asian competitors.

[23] 47 C.F.R. 20.6.

CONCLUSION

For the foregoing reasons, AT&T supports CTIA's request that the Commission initiate a rulemaking proceeding aimed at designating additional spectrum for 3G use and harmonizing it with spectrum use in the rest of the world. Full and immediate consideration of harmonization and the elimination of the spectrum cap is essential both to limit damage to the domestic wireless market and to protect the United States' ability to participate effectively in, and shape the development of, these and future wireless policies.

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Dated: August 28, 2000

DCDOCS:177332.5(3STW05!.DOC)

Certificate of Service

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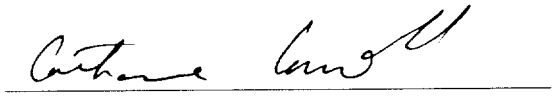

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