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FCC CHAIRMAN REED HUNDT
... formed PCS task force

FCC May Rethink PCS

License Auction Could Be Delayed Until 1995

By Sandra Sugawara
Washington Post Staff Writer

The phone that goes anywhere may have to stay put for a while longer.

With nearly a complete makeover of the Federal Communications Commission, it appears likely the agency will reconsider its decision on how to divide up radio spectrum space for personal communications services, a term that encompasses a range of portable phones and electronic devices that can work anywhere—in a car, restaurant, home or office.

As a result, the auction of licenses to firms that want to provide the service may be delayed until 1995, according to sources familiar with the process.

The FCC recently established a task force that is reviewing the plan for auctioning the licenses.

In September the FCC voted 2 to 1 to adopt a complex plan for dividing up a huge chunk of radio spectrum that is being set aside for PCS. The FCC planned to begin auctioning the licenses before June.

But the FCC plan generated 66 pe-
See PCS, D13, Col. 1

FCC Makeover May Change Policy on Personal Phones

PCS, From D11

titions from companies and industry groups calling for changes in every aspect of the scheme. And because of departures and additions to the FCC, James H. Quello is the only remaining commissioner who voted for the plan. When the final two nominees are confirmed by the Senate, the commission will have five members.

If PCS is as popular as its supporters envision, it could make the licenses extremely valuable. Congress anticipates the auction raising \$10 billion for the government.

Some PCS companies, including those who criticized the plan unveiled last September, now are alarmed at reports of lengthy delays. They argue that pushing the auction into next year could hurt their businesses by giving cellular companies and other wireless technologies time to catch up.

PCS systems would operate much like cellular systems, except that they are expected to offer more features and enable users to take their phone number anywhere they go. Cellular companies are upgrading their systems to be able to compete.

Industry executives said they have warned the FCC that delays could complicate their financing plans and are causing companies such as MCI Communications Corp. to seek alternative technologies to establish wireless networks. These executives argue that significant delays could mean

less money will be raised in the FCC auction.

Women-owned, minority-owned and small businesses also are forming an organization to lobby Congress and the Clinton administration to protest changes under consideration that could eliminate or reduce the licenses that are set aside for those groups, said Steven A. Zecola, president of Columbia PCS Inc., a PCS company based in Alexandria.

Chairman Reed Hundt, who did not join the FCC until Nov. 30, reportedly has been concerned about issues raised by critics, and formed the PCS task force to develop a plan that could resolve some of those problems, sources said.

The FCC's Private Radio Bureau chief, Ralph Haller, who heads the PCS task force, said nearly every aspect of the plan approved in September has been criticized. With so many things on the table, he said, it was "unlikely . . . that there would be no changes."

Furthermore, he said, a change in one aspect of the plan could have wide repercussions elsewhere. "This is like a big balloon. You push in one side, and it pops out somewhere else," he said.

Haller said the task force hopes to make a recommendation to the commission in a few weeks. That would mean the commission could consider the new proposal sometime in May or June.

However, any new arrangement is

likely to produce a new crop of winners and losers.

The FCC is thus expected to take several months to review criticism of the new plan, a schedule that could easily push the auctions into 1995, sources aid.

Haller said the task force review would not affect the award of pioneer preference licenses to three firms, American Personal Communications Inc., which is owned by a limited partnership in which The Washington Post Co. has a 70 percent interest; Omnipoint Corp.; and Cox Enterprises.

But it could potentially affect factors like the boundary of the regions or the size of the radio spectrum awarded to the firms holding pioneer preference licenses, which were issued free to reward innovation.

Haller declined to comment on the issue of set-asides for women-owned, minority-owned and small businesses.

The FCC had proposed setting aside a special block of radio spectrum space for these groups, but is reportedly having second thoughts, according to several industry sources.

"Most of our clients are small businesses, or women-owned or minority-owned or rural, and they are saying, without the set-aside, we can't bid," said Pam Gist, an attorney for the Washington-based telecommunications law firm of Lukas, McGowan, Nace & Gutierrez.

Small Firms Fight to Win Space on Data Superhighway

Effort Focuses on FCC as It Crafts Rules for Auction of Wireless Spectrum

By JEANNE SADDLER

Staff Reporter of THE WALL STREET JOURNAL

WASHINGTON — Small communications companies and entrepreneurs are fighting to make sure that giant competitors don't drive them off the coming information superhighway.

A big step in that fight begins today, when the Federal Communications Commission starts hammering out rules for auctioning pieces of the radio spectrum for personal-communications services — a new way of sending voice, data and video messages. The rules will strongly influence how big a role small firms play in a potential multibillion-dollar market.

Big Fish Maneuver

At stake is the heart of a wireless system that will let businesses and consumers communicate without the land-based wires of the major telephone and cable companies. Giant corporations such as MCI Communications Corp., American Telephone & Telegraph Co. and the regional Bell telephone companies are all maneuvering for places in this wireless system, where they could offer everything from hand-held phones to on-demand video games. Small companies want to make sure that the FCC writes its rules in ways that also give them access to these lucrative new markets.

"This could be like the great land grab in the West, when certain people got most of the land, discovered oil and created enormous wealth," says Joseph Profit, president of Communications International Wireless Inc. The small Atlanta firm is competing for a stake in this evolving multimedia industry. "This is a chance [for government] to let a broad base of people participate in a new industry," he says.

Small communications concerns also

are pressing to make sure their interests are protected in sweeping telecommunications legislation now moving rapidly through Congress. Their congressional lobbying has already helped small firms to gain an edge in the coming FCC rules on personal-communications services.

Last summer, Congress ordered the agency to devise a system that would aid the industry's small businesses, as well as those owned by women, minorities and

This could be like the great land grab in the West,' says Joseph Profit, president of Communications International Wireless.

rural telephone companies. And the FCC has already signaled its intention to set aside two sections of the radio spectrum for those companies in its wireless rules.

But small firms say rules to ease their financial burden are the key to whether they will gain a stake in the new industry. When the FCC auctions off the radio spectrum, these firms want to be able to make smaller down payments if they win a bid and to get the right to pay in installments for any spectrum slots won. Another crucial factor will be the order in which the FCC auctions off parcels of the spectrum, because that will make clear which businesses dominate certain regions and could determine whether big and small companies form lucrative alliances.

Small companies got additional assistance from Capitol Hill in January from Sen. Dale Bumpers, the Arkansas Democrat who heads the Senate Small Business

Committee. He wrote the FCC in support of its set-aside intentions and called for the extra financial help sought by small firms.

On the other hand, BellSouth Corp. recently wrote the FCC to argue that set asides would lead to "spectrum ghettos," which would decline in value. BellSouth has led the regional phone companies in opposing the set-aside idea.

Alliances to Gain Muscle

Faced with uncertain prospects, small communications companies are forming alliances to gain muscle in the coming FCC auctions. American Wireless Communications Corp., based in Washington, is a business alliance of small firms that plan to help each other find financing and develop technical expertise as they compete for personal-communications services slots.

"We understood quickly that if we wanted to proceed against deep pockets, our most prudent play would be as a coalition of small-to-medium-sized businesses," says Walter Threadgill, president of the alliance, which was formed last fall.

Another consortium, the Small Business PCS Association in Portola Valley, Calif., aims to devise its own national personal-communications services network by linking small members' expected systems. Robert Kyle, the group's chairman, says the 40-company alliance wants to offer a system in which a call to a subscriber's San Francisco office, for example, would be forwarded to an office the subscriber is visiting in New York.

Both alliances say they worry that the FCC, stung by industry criticism of its recent decision to cut cable-TV rates again, may delay many decisions that it is to begin considering today. The alliances

fear the commission may push back the auctions' debut from this summer until possibly the end of the year. The small-business consortiums say such a delay would let cellular phone companies, major potential competitors, update their systems. Personal-communications services are expected to be a threat to the cellular industry because they are based on a different technology that will be cheaper to use.

The FCC already has created controversy in the nascent industry by granting lucrative licenses to four players since last fall. The commission said the four helped to develop the so-called PCS technology. Omnipoint Inc., a small, closely held firm in Colorado Springs, Colo., won the right to offer one of the two data services in the New York City and northern New Jersey area. Cox Communications Inc., the big cable concern, and American Personal Communications, a partnership of medium-sized and big media companies that includes the Washington Post Co., won free licenses to start wireless-data systems in Los Angeles and Washington, respectively. Mobile Telecommunications Technologies Inc., known as Mtel, was granted one of the 11 nationwide licenses.

Because the FCC has granted a preference to some large companies, the agency should help small ones to a greater degree, argues Mr. Profit of Communications International. "The big guys want to keep the old technology as long as possible," he adds. "We want to put the new technology out there and bring the prices down."

The FCC is considered sensitive to the need to ensure that small communications companies can play a significant role in the emerging wireless arena. It's still unclear exactly what rules the commission will adopt to achieve that end.

Barrett Focuses on PCS 'Recon,' May Seek Greater Flexibility for Cellular Carriers

While reconsideration of the FCC's broadband personal communications service order likely will delay radio spectrum auctions, it may allow the agency to develop "a more simple and reasonable spectrum allocation scheme," according to Commissioner Andrew C. Barrett. In his keynote address at TR's "Wireless/PCS VI" conference in Washington last week, he explained that before moving ahead to auctions, "we have to resolve any problems we have with the spectrum allocation decision" on broadband PCS. At the same conference, FCC Chief Engineer Thomas P. Stanley noted that the agency was "hip-deep in paper and options" regarding the 66 petitions for reconsideration of the "second report and order" in the general docket 90-314 PCS proceeding (TR, Sept. 27, 1993).

Mr. Barrett, who dissented from that decision last fall, said he still had concerns about the complicated licensing scheme of seven channel blocks—two 30 megahertz, one 20 MHz, and four 10 MHz assignments. "At the time of this decision, I did not want to rely on complex spectrum auction schemes in order to clean up the overall mess created by the initial PCS allocation scheme, particularly the 10 MHz spectrum pieces. Thus, instead of supporting a political compromise decision, I believed then and continue to believe now that we can do a better job."

He called the Commission's recent Office of Plans and Policy docket 93-253 order adopting "generic" rules for auctions (TR, March 14) a "first step." He added that specific auction rules for specific PCS offerings would be developed "once the broadband PCS order is finalized. But I'm not sure when we're going to do that." He said he has not been able "to sit down with our new Chairman [Reed E. Hundt] and talk about what his agenda is, and what kind of time frame he has in mind. He is still on a learning curve, and his staff is still on a learning curve." Mr. Barrett noted, however, that he planned to meet with Mr. Hundt the next day (March 16) to discuss such issues. On March 17, the Chairman unveiled a task force to address PCS issues (see box).

Delays Could Push Auctions into Late 1994

After the broadband PCS order is "finalized," Mr. Barrett said at TR's conference, the Commission probably should "allow sufficient time for any reconsideration petitions regarding specific auction rules." Finally, the "normal delay of obtaining contractors to conduct auction services could push the commencement date for PCS auctions further into late 1994." He hoped, however, that the Commission would push the process "as expeditiously as possible" so that auctions could begin "in the late fall."

While such a time frame may disappoint some PCS proponents, it may work to the advantage of others, such as cellular telephone companies. In his remarks last week, Mr. Barrett said that after reviewing "the reconsideration record," he wants to send "clear signals to the capital markets and consuming public that there could be significant competitive alternatives to local exchange services if the PCS scheme includes major spectrum allocations for larger market areas. I also wish to include more flexibility for various PCS licensees to engage in joint ventures with each other in order to provide additional service flexibility to the market.

"In this context, I want to ensure that our spectrum auction rules for PCS will allow sufficient flexibility for consortia of various-size companies to provide services within MTAs [Major

PCS TASK FORCE

FCC Chairman Reed E. Hundt has formed an intra-agency task force "to coordinate the Commission's consideration and adoption" of personal communications service rules and policies. Headed by Private Radio Bureau Chief Ralph Haller, the task force includes Chief Engineer Thomas P. Stanley; Robert Pepper, Chief of the Office of Plans and Policy; Donald Gips, Deputy Chief of the Office of Plans and Policy; and Chief Economist Michael Katz.

Trading Areas], or in joint ventures between MTA and BTA [Basic Trading Area] license holders. I may also seek additional flexibility for cellular licensees to invest in MTA licenses 'in-market,' or in joint ventures with BTA licenses held by others within their markets. This flexibility could be reflected in less stringent attribution rules for PCS investment for cellular licensees within their markets."

Under the broadband PCS order, the "cellular eligibility" criteria for PCS licenses are based on a "20% attribution" standard, a "10% overlap" rule, and a "5% ownership" rule (TR, Nov. 1, 1993). In other words, a cellular carrier is restricted to a 10 MHz PCS channel block in its service area if (1) it has more than a 20% interest in a cellular entity in that area, or (2) more than 10% of the PCS licensing area—an MTA or BTA—is within the carrier's cellular geographic service area.

Regarding partnerships and consortia, the 10% overlap rule applies when a party owns interests in more than one cellular system overlapping the PCS service area. That is, if a party owns two cellular systems (each with a 5% overlap in a PCS area), the party has a 10% overlap and, therefore, is eligible for only a 10 MHz license in its service area. Further, if five parties each have a 5% ownership interest in a single cellular license, this five-party consortium would have a cumulative 25% interest. Thus, it also would be restricted to a 10 MHz license under the broadband PCS order. A number of cellular carriers sought reconsideration of this aspect of the broadband PCS decision (TR, Dec. 6, 1993).

Barrett Still Concerned about 10 MHz Blocks

During his keynote address March 15, Mr. Barrett continued to question the viability of a 10 MHz PCS license in the upper portion of the 2 gigahertz band. "I want to assess the technical merits, if any, of the 10 MHz allocations above 2 GHz. Due to my concern that each spectrum allocation for PCS should have the potential to stand alone as a viable market and spectrum size, I do not want to engage in spectrum gerrymandering of BTA allocations for PCS in order to solve issues like cellular eligibility within [cellular] markets," the Commissioner explained.

"Instead, I would seek to deal with that issue more forthrightly through greater flexibility in the attribution and joint venture process within their markets. Further, I would consider allowing more flexibility with respect to their participation in any consortia bid for an MTA that encompassed their markets. Finally, I would consider allowing cellular companies to phase in all-digital systems and consider a phase-in of greater flexibility with respect to the Bell company-cellular separate subsidiary requirement," he said.

"I am particularly interested in the latter issue where the Bell companies are required to provide unbundled tariffs for interconnection to their switched network for all CMRS [commercial mobile radio service] providers. If more significant market competition evolves (and provides an alternative for all customers) from PCS within the local exchange market, then I believe the Bell companies should be allowed to respond to this competition with greater flexibility," the Commissioner said.

MCI-Nextel Cited as Evidence to Move on PCS

In addition, Mr. Barrett saw the recent MCI Communications Corp./Nextel Communications, Inc., deal (TR, March 7) as evidence that the FCC should move expeditiously on PCS licensing. "Clearly, MCI seeks to significantly enhance its nationwide fiber infrastructure through a compatible wireless network. The investment in Nextel is likely to provide coverage to a significant portion—more than 90%—of the market," he said.

Mr. Barrett added, "I believe that the Commission should be concerned that entities like MCI, Sprint [Corp.], and the [Bell companies] maintain their interest and willingness to invest in PCS. To the extent they view our process as complicated and fraught with regulatory delays and uncertainty, it is unlikely that our PCS decision will attract significant private capital for a long-term investment."

Regarding the FCC's recent decision to expand rate reductions in the cable TV industry (TR, Feb. 28), Mr. Barrett said that this action is likely to affect the ability of cable TV companies to invest in

network enhancement and development, "including PCS." He said the "issue is whether the overall effect on rate flows will deter investment due to a lesser ability to raise investment capital as a function of cash flow. If that is the case, then it is likely that cable companies will need to choose their investments more carefully. The more uncertainties involved in obtaining future returns from network investments, the less likely the capital flows to such investments in the short term.

"It appears that major MSOs [multiple system operators] will be required to consider the return on investment likely from PCS in relation to other investments which may bring quicker, or more reliable returns. Given the generally short-sighted view of most investments by American businesses, we should not continue to believe that significant market competitors will invest in PCS spectrum if the returns are more long-term, and if the up-front investment is significant—particularly if the regulatory overhang of PCS complicates the investment decision even further."

In conclusion, Mr. Barrett said: "If we are going to have a significant impact on local competition issues in the local exchange market, I believe our upcoming decision in PCS must not unnecessarily complicate future investment decisions by major sources of private capital. Predictability in market sizes, viable spectrum allocations, and simple auction rules will likely improve the prospects for continued interest and major investment in PCS."

FCC Will Consider Further Proceedings

Also at TR's conference, **Michael Altschul**, Vice President and General Counsel for the Cellular Telecommunications Industry Association, analyzed the FCC's general docket 93-252 "regulatory symmetry" order and pointed to several issues that the agency will consider in further proceedings. These issues include:

(1) The obligations of cellular and commercial mobile radio service (CMRS) networks to interconnect with the public switched telephone network and other CMRS providers and private carriers. While all networks should be interconnected, CTIA believes that in the absence of market power, no carrier should be obligated to provide unbundled interconnection;

(2) The equal access obligations of cellular and CMRS providers. Again, while all cellular and CMRS carriers should have the same equal access obligations, in the absence of market power, no carrier should be obligated to provide equal access;

(3) Technical rules for private carriers that must make the transition to CMRS. Since there is no single vision for CMRS and PCS, such technical rules should enhance all carriers' flexibility to deploy new services and technologies. Also included in this rulemaking may be the remaining portions of the FCC's "rewrite" of its part 22 rules governing cellular and paging operations (TR, May 18, 1992);

(4) The obligations of local exchange carriers (LECs) to file tariffs regarding services they provide to cellular and CMRS providers. CTIA's position is to affirm the LECs' existing interconnection obligations. But if the FCC adopts a

PIONEER'S PREFERENCE

The U.S. Court of Appeals in Washington has dismissed Freeman Engineering Associates, Inc.'s petition to review the FCC's decision to award a pioneer's preference to Mobile Telecommunication Technologies Corp. (Mtel) for narrowband personal communications services (TR, Aug. 30, 1993). In an opinion written by Judge Douglas H. Ginsburg, the court dismissed case nos. 93-1519 and 93-1520 on the ground that Freeman's petitions were "incurably premature."

The court noted that Freeman's petition for reconsideration of the FCC's order still is pending before the agency. And still pending before the court is BellSouth Corp.'s request to review the Mtel decision in case no. 93-1518. Separately, the court granted American Personal Communications' motion to intervene in that case.

rule requiring interconnection tariffs, any contribution to universal service included in a carrier's interconnection charges must be "competitively neutral";

(5) Reporting requirements to permit the FCC to comply with its statutory obligation to monitor competition in the CMRS market. CTIA's position is that providers with functionally equivalent services should be subject to the same regulatory obligations—in this case, reporting obligations;

(6) Whether there are subclasses of CMRS providers, such as small specialized mobile radio and paging companies, where further forbearance may be appropriate. Again, CTIA's position is that all providers of functionally equivalent services should be subject to the same regulatory obligations; and

(7) Whether the rules for cellular carriers should be changed to permit cellular carriers to provide traditional dispatch services. Consistent with the concept of "regulatory parity," CTIA believes that all CMRS carriers, including cellular, should be allowed to provide traditional dispatch offerings.

PCS Is Subject to 'Regulatory Costs'

Addressing the issue of the "regulatory costs" of PCS, **Melanie Haratunian**, a partner in the Washington law firm of Halprin, Temple & Goodman, focused on interconnection fees and access charges. She said the text of the FCC's general docket 93-252 order on mobile services regulation notes that interstate interconnection rates must reflect "mutual compensation" principles. Specifically, the rates LECs charge PCS providers for interconnection must reflect the "reasonable costs" incurred by the LECs in terminating the traffic that originates on the PCS network. Conversely, PCS providers are entitled to charge LECs for the reasonable costs incurred in terminating the traffic that originates on LEC facilities, Ms. Haratunian said.

She added that the order requires LECs to "charge all mobile radio service providers the same interconnection rates for the same types of interconnection. These two FCC requirements were specifically designed to reduce the interconnection rates that PCS providers must pay."

While cost-based interconnection rates may be desirable, Ms. Haratunian pointed out that "requiring such rates without also eliminating government-imposed subsidies will arguably increase the value of PCS licenses because there will be an artificial price umbrella within which PCS providers can operate without competition from the LECs. Such a pricing environment will artificially allow PCS providers and other local service competitors to undercut the rates that LECs charge their urban, interstate, and business customers.

"Of course, there is a risk that the government may eventually eliminate, or at least reduce, the subsidies. Should that happen, the increased value of the PCS licenses will cease to exist. However. . . subsidies once imposed are hard to eliminate, and they tend to last a very long time. It is very possible that by the time that the LECs are allowed to eliminate or reduce the subsidies, PCS providers will have already enjoyed a tidy little windfall."

Ms. Haratunian also noted that there is increasing concern in Congress and at the FCC that "too few telecommunications providers" are contributing to universal service. In this regard, she said: "Clearly, from a competitive equity perspective, it is beneficial that all providers of local service contribute their fair share to universal service. However, to the extent that such an obligation is imposed on PCS providers, it will undoubtedly increase their regulatory costs."

Uncertainty Said to Discourage Investors

To encourage capital formation in the bidding process, the FCC should take several actions, according to **Mark Golden**, Vice President-government relations for the Personal Communications Industry Association (formerly Telocator). He said that the Commission should (1) adopt simple, workable auction rules that permit informed decision making by bidders; (2) allow post-auction transferability of licenses among qualified entities; and (3) adopt build-out rules that will not discourage investment.

Mr. Golden emphasized that the uncertainty over the final form of the broadband PCS order "makes finalization of business plans, partnering decisions, and development of auction strategies impossible." He said such uncertainty also "impedes arrangements to secure firm financial backing" and has caused "manufacturers to delay commitments" to roll out PCS products. Delay, or even the perception of delay, "undermines investor confidence and jeopardizes the ability of the industry to raise the capital needed to acquire licenses and build the PCS infrastructure," Mr. Golden said. He worried that carriers and investors might turn to other technologies and opportunities.

According to **Marie Guillory**, Regulatory Counsel for the National Telephone Cooperative Association, the Commission appears to have forgotten rural telephone companies. After "waving the flag for set-asides, the FCC may be moving in another direction. Things may be changing on the way to the bank," she said. She noted that the PCS licensing areas—MTAs and BTAs—are too large for rural companies. She recommended a "partitioning of the BTAs" into smaller areas and "discounts on bidding" for rural telephone companies and cooperatives.

Preferences for other "designated entities" were sought at the March 14 conference on "PCS opportunities for small business, women, and minorities," sponsored by the D.C. Chapter of American Women in Radio and Television, Inc.; the Entrepreneurial Growth and Investment Institute; the Young Lawyers Committee; the Federal Communications Bar Association; and the Women's Bar Association of D.C. **John R. Winston**, Director of the FCC's Office of Small Business Activities, said that small businesses, women, and minorities would find it "extremely difficult" to get into the PCS business today "regardless of whether auctions begin in four to six months, or in eight to 12 months." He said it would not be easy for a designated entity to develop a PCS business plan because he or she would be "awfully far behind the planning curve."

Mr. Winston also warned that if anybody views the FCC's proposed preferences and set-asides for designated entities "as a quick chance for profiteering, think again." Similarly, FCC General Counsel **William E. Kennard** said, "We will be very vigilant in weeding out sham applications. . . There will be severe penalties."

Panelists Address Microwave Relocation Issues

At a March 17 microwave relocation conference sponsored by PCIA and Comsearch, **Fred L. Thomas** of the FCC's Office of Engineering and Technology noted that the agency's goal in the "emerging technologies" proceeding was to provide spectrum for new services, while continuing to accommodate the spectrum needs of existing operational-fixed microwave users. The FCC launched its engineering and technology (ET) docket 92-9 proceeding in early 1992, adopted three orders in 1993, and refined its rules at its March 8 public meeting (TR, Jan. 20, 1992; July 19, 1993; and March 14). The essence of ET docket 92-9 was (1) the allocation of 220 MHz of spectrum in the 2 GHz band for emerging technologies, including PCS, and (2) a transition plan for relocating incumbent microwave users to higher frequencies or alternative media such as fiber optic technology.

With the proceeding "completed for all practical purposes," Mr. Thomas said the Commission has identified approximately 29,000 microwave licensees in the 2 GHz band. This works out to about 700 microwave links per 10 MHz block in the FCC's licensing scheme for broadband PCS, he said. For unlicensed PCS (1890-1930 MHz), the number of links drops to 200 per block, he added. The cost of relocating microwave users has been estimated at \$125,000 to \$150,000 per link. PCS companies entering the 2 GHz band are obligated to pay all relocation costs. Public safety microwave users have a four-year "voluntary" relocation period, and a one-year "involuntary" relocation period. All other incumbent microwave users have a two-year voluntary period, followed by a one-year mandatory period.

Christine M. Gill, a member of the Washington law firm of Keller & Heckman, said that 2 GHz microwave licensees generally are not opposed to PCS and, in fact, probably would be the best PCS customers. While there have been disagreements in the past, microwave licensees are "resigned to their

fate and ready to move forward," she said. She also predicted that there would be "few involuntary relocations" and said she would be surprised if the FCC were called in to resolve any differences between microwave users and PCS companies.

Jeffrey L. Sheldon, General Counsel for the Utilities Telecommunications Council, noted that many incumbent utility microwave licensees can bring a number of services to the negotiating table that would benefit start-up PCS companies. For example, he said, utilities have (1) towers, poles, and rights of way for cell-site deployment; (2) cell-site interconnect service based on fiber optic or microwave technology; (3) customer billing for virtually the entire market population; (4) customer service centers; (5) engineering and construction services; (6) facilities management; (7) access to capital markets; and (8) corporate name recognition.

Wayne E. Cooper, Director-business development for Baltimore Gas & Electric Co.'s Telecommunications Department, noted that while BGE is one of the largest local telephone customers, it owns and operates the largest private telecommunications infrastructure in Maryland. In addition to radio-based services, the company provides fiber optic-based competitive access offerings. He said, "We cannot remain competitive without the benefits of new technologies. We think PCS will save us money and give us greater flexibility in the long term." In this regard, BGE is willing to negotiate with PCS proponents "who are willing to cooperate and negotiate fairly," he said. BGE's transition plan for relocating its microwave facilities includes moving some links "to the 6 GHz band, replacing some microwave hops with fiber optics, and integrating digital microwave and fiber optics," he explained.

Although the emerging technologies docket virtually has been completed, several issues remain unresolved. One such issue is a phenomenon called the "free rider," according to **Mark Gibson** of Comsearch and PCIA's counsel, **R. Michael Senkowski**. They explained that some microwave paths straddle channel blocks, licensing areas, or even licensed and unlicensed spectrum—that is, the path may begin in one PCS service area and end in another. This raises the question of which PCS provider is responsible for paying to relocate the path. If provider "A" pays, then provider "B" gets a "free ride." An equitable solution should be found, according to Messrs. Gibson and Senkowski.

In the larger context of PCS deployment, however, many speakers and panelists at the different conferences last week expressed concern that the FCC is moving too slowly on auction rules and reconsideration of the broadband PCS order. As Ms. Guillory noted at TR's conference, "The only certainty is that there is uncertainty."

Such uncertainty has spawned rumors that the Commission is tinkering with the configuration of channel blocks for broadband PCS. Under one scenario, the spectrum allocation would be remodeled into six 20 MHz channel blocks, although many players believe that a 20 MHz assignment is untenable. Under another scenario, the FCC would return to its original proposal of three 30 MHz assignments in the lower 2 GHz band (1850-1990 MHz). But this would require taking some spectrum earmarked for mobile satellite services (i.e., from the 1970-1990 MHz band), and/or unlicensed PCS (i.e., from the 1890-1930 MHz band).

But while three 30 MHz assignments in the lower 2 GHz band would be technically feasible, it would have political repercussions. Nevertheless, some observers argued last week that the "three 30s" would enable the Commission to eliminate the "set-aside problem" regarding SWMRs (small businesses, women- and minority-owned enterprises, and rural telcos).

If, as many observers fear, a spectrum set-aside "would not stand up in court," the FCC could allow SWMRs "to have auction discounts" and bid on any of the three 30 MHz blocks. Another possibility would be to eliminate the four 10 MHz assignments and place a 30 MHz block in the upper 2 GHz band. But as FCC Chief Engineer Stanley stated at the PCIA-Comsearch conference last week, "You've probably heard about possible changes. And you will continue to hear rumors." □

GOALS



American Wireless Communications Corporation

- ESTABLISH AWCC AS PCS ORGANIZATION FOR DESIGNATED ENTITIES.
- CREATE WINNING BID STRATEGY FOR AWCC MEMBERS.
- ENTER INTO ALLIANCE WITH NATIONAL SERVICE ORGANIZATION.
- CREATE FUNDING MECHANISM FOR AWCC AND ITS MEMBERS.
- RESPOND TO REGULATORY ACTIONS THAT WOULD IMPACT AWCC MEMBERS.
- ESTABLISH TECHNICAL STANDARDS FOR AWCC NETWORK.
- PROMOTE APPLICATIONS AND BENEFITS OF PCS TO NATION.

BENEFITS



American Wireless Communications Corporation

- DEDICATED SOLELY TO THE SUCCESS OF DESIGNATED ENTITIES.
- PROVIDES NATIONAL COVERAGE FOR PCS APPLICATIONS.
- ALLOW FOR WINNING BIDDING STRATEGY.
- ATTRACT FUNDING CAPITAL.
- CREATES A VIABLE COMPETITIVE FORCE.
- ATTRACTIVE TO NATIONAL SERVICE ORGANIZATION.
- VALIDATES DESIGNATED ENTITY STATUS.
- STANDARDIZE TECHNOLOGY, PRODUCTS, SERVICES, SUPPORT.

WHAT IS PCS?

Its full name is Personal Communications Services and it is the next generation of wireless technology. The telecommunications industry is currently entering a phase of rapid technological change focused on the ability to communicate in a totally mobile state. PCS is the next step beyond cellular in mobile communications. PCS will include advanced forms of wireless voice and data services to include cellular telephony, portable facsimile services, wireless local area networks (LANS) and wireless business telephone systems, pbx and key systems. The PCS equipment will include small, light-weight wireless telephone handsets, computers that can communicate over the airwaves and portable fax machines.

On August 10, 1993, the Omnibus Budget Reconciliation Act of 1993 (Budget Act) added a new section, 309(j) to the Communications Act of 1934. This gave the Federal Communications Commission the authority to employ competitive bidding procedures for the deployment of radio spectrum licenses and permits for PCS. The Commission allocated 220 MHz of spectrum between 1850 and 2200 MHz to meet the requirements of these new services. In its Second Report and Order, dated September 23, 1993, the FCC issued a definition of PCS, stipulated the specific radio spectrum to be provided for PCS licenses, the number of providers to be licensed, the size of the PCS service areas, the eligibility requirements for licensees, the licensing mechanism, the regulatory classification of PCS providers and technical standards.

The service areas have been defined in the Rand McNally Commercial Atlas and Marketing Guide and consist of 47 Major Trading Areas (MTA's) and 487 Basic Trading Areas (BTA's). The FCC created four 10 MHz (5 MHz paired), one 20 MHz (10 MHz paired), and two 30 MHz frequency blocks (15 MHz paired). The spectrum will be divided evenly between BTA and MTA service areas, 60 MHz for each. The two 30 MHz frequency blocks will be designated for MTA operation. The remaining one 20 MHz frequency block and four 10 MHz frequency blocks will be designated for BTA operation. Licensees will be authorized to aggregate up to 40 MHz of spectrum in any one service area and service areas will be able to aggregate without restriction.

Pursuant to a Congressional mandate to provide economic opportunity for PCS, the FCC is currently conducting a proceeding to set forth its eligibility criteria for designated entities. It is expected that women and minorities will be classified as designated entities. As such, they must have voting control and own at least 50.1% of the equity in their businesses to qualify. Small businesses can have at least \$2 million in average net income and \$6 million in net worth.

In order to be eligible for designated entity status, a rural telephone company's service area is expected to be limited to a certain amount of subscribers.

The FCC has tentatively proposed to set aside one 20 MHz block and one 10 MHz frequency block in the BTAs of spectrum for the exclusive bidding by the designated entities. Thus the designated entities are guaranteed an opportunity to participate in PCS. In addition, the FCC is expected to allow the designated entities to pay for their winning bid over time in the form of installment payments as well as considering the use of tax certificates which would allow deferral of capital gains taxes if certain reinvestment conditions are met. The FCC is also considering reduced up front payment and deposit obligations if the designated entity is awarded licenses.

This is all taking place because of the strong public demand for wireless communications services coupled with PCS' ability to reach as yet untapped portions of the market. This results in staggering market forecasts for PCS. For example, Arthur D. Little, Inc. forecasts that PCS will generate annual revenues of \$35 to \$40 billion by the year 2010. A marketing study by Telocator, a national trade association for the wireless communications industry, predicts that PCS will become a market "in the neighborhood of 60-90 million subscribers." Peter Huber predicts "PCS will probably penetrate 40% of the U.S. residential market by the end of the decade."

PCS is expected to create substantial business opportunities. PCS entrants can potentially address four major markets: paging and data services (estimated to be a \$3 billion market), cellular telephone service (estimated to be a \$10 billion market), long distance access (estimated to be a \$30 billion market), and local exchange service (estimated to be a \$53 billion market). Early applications of PCS will focus on the cellular and paging markets which have been wildly profitable to date, yet have relatively small market penetrations. Long distance access and local exchange service will follow as technology advances. Thus, there are immediate and real business opportunities in the short term. The long term opportunities are potentially enormous.

The FCC is expected to conduct the narrowband license auction sometime in the May/June timeframe. The broadband auction is expected during late summer. Successfully obtaining a license for certain BTA's is a prerequisite for entering the PCS arena. While the FCC intends to encourage the participation of designated entities in the process, they will still have to go through the auction process. This will entail the creation of a successful bidding strategy that may strain the capabilities of individual companies. That is why the American Wireless Communications Corporation was formed.

AWCC OVERVIEW

The American Wireless Communications Corporation is a national consortium of small businesses, women and minority owned businesses and rural telephone companies referred to as designated entities formed to pursue business opportunities in the area of Personal Communications Services, or PCS. AWCC was founded by seven business owners in the communications industry who include Broadband Communications Corporation, Carter Capital Investments, Communications International Wireless Corporation, Infinity Wireless Communications, Inc., International Microwave Corporation and Wisconsin Wireless Communications Corporation. These firms have made capital contributions to organize the consortium and will provide the advisory talent as the Board of Directors for the group.

There are 974 licenses in 487 markets across the nation that have been tentatively exclusively reserved for designated entities. Congress and the FCC have provided designated entities a wonderful opportunity to get a start, but the realities of the market indicate that it will be very difficult for designated entities to effectively compete on their own. Designated entities need a national organization on which they can rely to receive assistance in creating their own business plans, a successful bidding strategy, technical expertise and other valuable services that will be necessary to successfully compete.

PCS is a local exchange service and must be connected to the public switched network. This will entail interconnection standards with the existing wireline carriers as well as access capability to interexchange carriers. Establishing relationships with all these entities is critical for the success of the designated entity, but at the same time, may prove to be beyond their individual capabilities. AWCC intends to establish a relationship with a national service organization (NSO) such as an RBOC or major long distance company who will provide these seamless connectivity capabilities. The creation of an alliance with an NSO will provide AWCC members with the ability to offer a nationwide menu of PCS services. In addition, this national service organization will be utilized to provide the critical billing function for each AWCC member.

AWCC is equally important to the NSO because it will provide them with additional bandwidth in marketplaces that can be aggregated with theirs to provide enhanced PCS services. AWCC members provide an added marketing arm for additional penetration of PCS services and may provide certain services not available from the NSO. At the same time, this relationship will provide economies of scale for both in the realm of technical standards, network design and installation, product descriptions, network control and quality assurance.

It is important to realize that there is an auction process to go through to be awarded a license. What is the value of a license? AWCC has already created sophisticated modeling programs for the valuation of all 487 BTAs and has used this to establish a bidding strategy criteria. The value and the bid price are probably not the same. Understanding the bidding strategy is a prime reason for participation in AWCC.

The FCC wrote its Second Report and Order for Docket 90-314 after it received hundreds of responses to its Notice of Proposed Rule Making Docket 93-253. The industry responded. Everyone wanted something a little different. What no one wanted was to have to contend with "designated entities". This class of trade was established, in part, because of effective lobbying by AWCC in Congress and before the FCC. AWCC was one of the very few designated entities to respond to the NPRM in its Comments of the American Wireless Communications Corporation dated November 10, 1993. AWCC will continue to have an effective public affairs program to make sure that AWCC members views are heard before Congress and the FCC and their interests protected.

Congress and the FCC have tried to establish certain criteria that will allow designated entities to compete. However, they will not put companies into business. It is the responsibility of each designated entity to raise the necessary funds to meet the auction requirements as well as construction and operating capital. Investment bankers aren't terribly interested in financing one designated entity in one BTA. However, a national consortium with a relationship with a national service organization that operates with organizational standards, master agreements with manufacturers and coordinated business plans is a very attractive investment. AWCC has created the framework for individual members to obtain their own financing. This has been done by creating a standard AWCC business plan format used by AWCC's founders for their own and AWCC's financing. It is available to AWCC members.

AWCC intends to be successful in its bidding strategy in the 85 BTAs it is concentrating on. Once the award of the licenses is made, the real work begins; the construction of the networks. This is where the efficiencies of scale of AWCC really come into play. In conjunction with the NSO, AWCC will create a Technical Deployment Plan that will have common standards for equipment, installation and right-a-way criteria. This will allow for efficient management of the installation process while creating AWCC networks that will be easy to maintain and deploy. In addition, common product and services will be available to the AWCC members as well as coordinated marketing and sales programs.

American Wireless Communications Corporation is the national PCS organization for designated entities.

MEMBERSHIP APPLICATION



American Wireless Communications Corporation

Please fill out completely, it will help AWCC help you. All information will be kept strictly confidential.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Corporate Officers/Titles: _____

TYPE OF COMPANY

____ DC ____ WIRELESS ____ INTERCONNECT ____ CAP ____ OTHER

SPECIFY _____

COMPANY INFORMATION

Company locations: _____

Annual Sales: _____ Years in business: _____ No. Employees _____

PCS INFORMATION

Designated Entity: ____ Yes ____ No Present Affiliations: _____

BTA Areas: _____

Business Plan: ____ Yes ____ No Financing: ____ Yes ____ No

AWCC MEMBERSHIP CRITERIA

- Small business/Minority/Woman Owned/Rural Telco
- Management Track Record
- Technical Expertise
- Financial Strength

CONGRESSIONAL INFORMATION

Congressional Rep: _____ Dist # _____

Relationship: _____ Know Well _____ Have Met _____ Slightly _____ Not at all

Support: _____ Personal Funds _____ PAC Funds

Willing to participate in Public Affairs Program? _____ Yes _____ No

Willing to come to Washington? _____ Yes _____ No

AREAS OF SPECIAL INTEREST/EXPERTISE

WHAT DO YOU EXPECT FROM AWCC?

MEMBERSHIP FEES

Member: \$10,000

Affiliate: \$15,000

10% non refundable payment due with application

Application Completed by: _____ **Amt. Encl:** _____

Title: _____ **Date:** _____

Please send check to: **American Wireless Communications Corporation**
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Washington, DC 20036
(202) 466-0222
(202) 466-0717 Fax