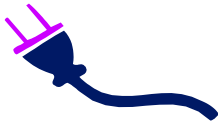
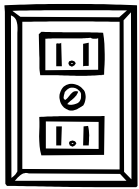


# FHH Telecom Law

Current Issues in Telecommunications Law and Regulation

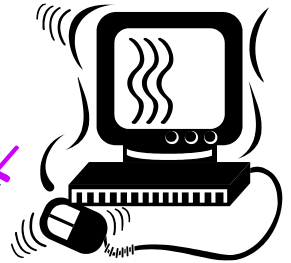
May 2003

*A new outlet for self-expression? Socket to me!!*



## Power Users on Power Lines

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**W**ires are wires, right? And all of us have wires coming into the house for the toaster and the TV. So instead of bothering with DSL and cable modems, why not just pipe in high-speed Internet over the power wiring?

There are lots of reasons, it turns out. House wiring was long thought to be inhospitable to data signals. Common appliances like hair dryers inject a lot of noise, electrically speaking. Power-company gadgets needed for electricity distribution get in the way of data. And just turning on a light or a ceiling fan can change the environment completely.

But the biggest problem has always been that garbage-can shaped object hanging on the pole outside the house (or, in some neighborhoods, the big green box next to the curb). Called the local power distribution transformer, this essential item converts the 10,000 volts or so used to send power around the neighborhood down to the 220 and 110 volts favored by household appliances. To a high-speed data signal, the transformer looks like a brick wall. And bypassing the transformer with a data wire is frowned on, because that would connect the 10,000 volt distribution line on the street to the toaster in the kitchen. Which makes for very dark toast.

The last few years have seen the confluence of two major developments: the problem of getting data past the transformer has been solved; and a lot of people now want broadband at home. Broadband over power lines – BPL, as the FCC calls it – is on the way.

In the meantime, the FCC wants to tinker with its rules. The data-carrying signals on power lines operate at radio frequencies. Some of that signal leaks off, with at least a theoretical potential to interfere with radio-based services. The digital devices needed to couple data on and off the power lines likewise emit radio-frequency noise. The FCC wants to help BPL get started on a large scale, but also wants to make sure radio receivers both inside and outside the BPL-equipped home are not subject to untoward interference.

The FCC has issued a Notice of Inquiry that seeks public comment on a range of issues relating to BPL. These include not only appropriate limits for radio noise, but also techniques for measuring radio emissions from BPL, which can vary dramatically from one installation to another.

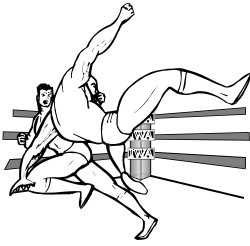
*(Continued on page 3)*

*Late Breaking News!!*

## FCC Acts on Two Spectrum Fronts

**As we go to press, the FCC has announced the launch of a proceeding to allocate 255 MHz of additional spectrum in the 5.7 GHz band for unlicensed use. See Page 2 for more details.**

**In addition, the FCC has adopted a Report and Order and Further Notice of Proposed Rulemaking in the long-pending proceeding on "secondary markets," intended to make under-used licensed spectrum more easily available to those who need it. See Page 7 for more details.**



## FCC and Court Both Change Slamming Rules

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**A** federal court has set aside a key FCC rule intended to deter "slamming" -- the unauthorized change of a telephone subscriber's long-distance-carrier. And the FCC has put through rule changes of its own.

The court case, which arose from an \$80,000 fine against AT&T, turned on the FCC's requirements for verifying that a customer really does want to change carriers. Congress authorized the FCC to adopt verification procedures. But the FCC added a requirement of its own: that the new carrier obtain confirmation from the "actual subscriber" of that telephone number. The court held this to be an impossible task, as the carrier had no way to ascertain that the person who answered the phone in fact was the actual subscriber.

Prior to that decision, the FCC changed certain other details. A carrier's sales person who convinces a customer to switch can then transfer the call to an independent third party for verification of the customer's intent. Where the FCC formerly required the sales person to drop off the third-party call, it now lets the sales person stay on, in cases where the sales person's phone system is technically unable to disconnect. In addition, the FCC dropped a reporting requirement, and also clarified liability in cases where a fraudulent carrier change request originates with the local exchange carrier, rather than the new long-distance carrier.

The FCC seeks further comment on its verification requirements, and is likely to expand the inquiry in response to the court decision. In the meantime, comments on its first set of changes are due June 2, and reply comments on June 17.

### Expansion of U-NII Band Proposed

**T**he FCC has proposed to augment the 5.7 GHz U-NII band with an additional 255 MHz, covering 5.47-5.725 GHz. The new band adjoins the U-NII upper band, which is at 5.725-5.825, and helps close the gap with the lower bands that collectively span 5.15-5.35 GHz.

U-NII devices are unlicensed, with permitted power ranging up to one watt. The U-NII upper band is part of the 5.7 GHz "spread spectrum" band, in which the FCC now allows modulations other than spread spectrum. The U-NII rules permit high-gain antennas in the upper band for fixed point-to-point installations. The lower bands are limited to lower powers and antenna gains. None of the existing U-NII rules have any restrictions on modulation.

The proposal follows an historic compromise with the federal government, particularly the Department of Defense and NASA, which sought assurances of interference protection to federal equipment already in the band. One option is a requirement for a "listen-before-transmit" mechanism to avoid frequencies in use. The FCC has signaled it intends to phase in commercial equipment over a transition period. The new spectrum is similar to that used for unlicensed operation in several other parts of the world. If the FCC's technical rules ultimately line up with those implemented elsewhere, manufacturers should be able to bring these frequencies on line in the United States quickly, and at relatively low cost.

Oh, yes. U-NII stands for "Unlicensed National Information Infrastructure."

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*A silly millimeter no longer*

# FCC to Review Millimeter Wave Allocations

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**T**echnological advances and spectrum crowding have combined to promote interest in commercial development of previously unused frequencies above 50 GHz, with wavelengths measured in millimeters. Applications are likely to include satellite uplinks and downlinks, fixed terrestrial transmissions, licensed mobile uses, and unlicensed operation, including vehicular radar. Recent World Radiocommunications Conferences (WRCs) have revised the international allocations table to enhance commercial uses of these bands, while protecting passive uses by the radio astronomy service (RAS) and the Earth exploration satellite service (EESS).

Last year, the FCC proposed changes to the domestic allocation table for the 71-76, 81-86 and 92-95 GHz bands, generally reflecting the changes to the international allocations table adopted at the WRC in 2000. These changes should promote better use of the spectrum by various services while reducing potential for inter-service interference.

More recently, in response to a request from the National Telecommunications and Information Administration (NTIA), the FCC issued another Notice of Proposed Rulemaking, this time addressing allocations at 76-81 GHz band and above 95 GHz. Again, the proposed changes would enact domestically the changes to the international

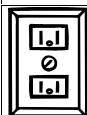
allocation table made at WRC 2000, primarily realigning and consolidating current allocations. The FCC raises a few other questions, including technical sharing criteria between satellite downlink services and RAS allocations in the same and adjacent bands. The FCC also seeks input on the feasibility of spectrum sharing between RAS and vehicular radar at 76-77 GHz, and interference mitigation techniques for that band.

*The proposed changes should promote better use of the spectrum by various services while reducing potential for inter-service interference.*

Lastly, noting prior allocations of the 50-64 GHz bands to a variety of services, the Commission asks for input on power density limits for transmissions by high-density fixed service (HDFS) at 55.78-56.26 GHz. These limits would be designed to minimize interference to the co-primary EESS use in that narrow band. NTIA sug-

gested, and the Commission proposes, a limit of -28.5 dBW/MHz, the same value offered by the U.S. delegation at WRC 2000, and more stringent than the -26 dBW/MHz that WRC 2000 adopted. The FCC notes the tighter limit should provide better protection to EESS, while having a minimum impact on current and future HDFS operations, since HDFS equipment has generally not been developed at this time for the band.

Comment and reply dates are not yet available, pending publication in the Federal Register.



*Power Users/Power Lines  
(Continued from page 1)*

Months before comments are due, BPL opponents have already begun to line up. Some are spectrum users, particularly amateur radio operators, who fear interference to their services. And some may be current broadband providers, such as telephone and cable companies, who might try to ensure that BPL is sufficiently hobbled by regulation to minimize any competitive impact.

*It's May—Do you know where your proceedings are?*



**Due dates for filings in FCC proceedings are subject to last-minute change. Please call us for current information.**



## Should the FCC Regulate Receivers?

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When Congress first set up the FCC in 1934, it charged the new body with preventing interference in the spectrum. In those days, of course, except for a few hardy amateurs, almost the only spectrum users were AM broadcast transmitters. So that's what the FCC regulated: it assigned frequencies, restricted power and antenna height, and set minimum distances between stations on the same or nearby frequencies.

Today the interference situation is a lot more complex, but the FCC's technique has not changed much. The FCC still regulates transmitters, keeps them on assigned frequencies, limits their height and power, and keeps them apart.

Now the FCC has announced it is ready to broaden its approach and consider targeting receivers as well, as a factor in interference. The motivation is simple: bad receivers waste spectrum. Several recent FCC proceedings have seen spectrum incumbents trying to block newcomers by claiming the new services would cause interference. But in many cases, the feared interference would be due as much to the incumbents' badly designed receivers as to the new signals. In effect, some incumbents have used their own poor receivers as the basis for demanding high levels of interference protection. While permissible under present law, this stance is a major obstacle to the FCC's efforts to squeeze more use out of the spectrum.

In fairness, not all incumbents control their receivers. The broadcast industry, for example, transmits to tens of millions of radios and TVs it does not provide, and over whose design it has little say. On the other hand, a subscription service such as wireless phone or "satellite radio" generally exercises complete control over its receivers, because it pre-approves and individually activates each one it serves.

A new FCC inquiry asks for public comment on whether receivers should be subject to standards ren-

dering them more robust in the face of interference. Despite technical consensus that better receivers could increase the number of people sharing spectrum without getting in each others' way, the proposal still faces obstacles.

*Despite consensus that better receivers could increase the number of people sharing spectrum, the proposal to regulate receivers still faces obstacles.*

The FCC hopes to make any receiver standards voluntary. But better receivers presumably will be more expensive. While they serve the social good by making the spectrum more hospitable to all, they offer little advantage to the individuals paying for them. It's like asking car-buyers each to pay more for fuel-efficient vehicles so as to improve everybody's environment. Most people won't

do that voluntarily, which is why we have government-imposed fuel economy standards.

But if receiver standards likewise must be mandatory to work, that also raises a problem, because the FCC may lack the legal authority to impose them. Federal agencies like the FCC are creatures of Congress, with only the powers that Congress gives them. A 1968 statute authorizes the FCC to regulate the receivers in "home electronic equipment," which the FCC has never done -- and it is not clear the FCC can lawfully regulate any other kind. The courts traditionally give the FCC some leeway in reading its authorizing statutes, and Congress can always step in to add a few clarifying words. But it's too early to guess how the legal issues will play out.

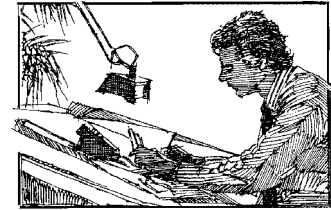
In short, better receivers can improve use of the spectrum. Indeed, receiver standards may be long overdue. But the economics tilt against voluntary adoption, and the FCC may lack the legal clout to make standards mandatory. Receiver regulation may turn out to be a good idea whose time has not yet come.

(A version of this article appeared in the May 2003 issue of *Wireless Design & Development*.)

Back to the drawing board . . .

## FCC Redraws MDS/ITFS Rules (Again)

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The FCC has proposed another major revision of the MDS and ITFS rules in yet another effort to reinvigorate those services. The timing follows the regime-change transfer of MDS/ITFS to the Wireless Telecommunications Bureau, upon which the Bureau suggested to the major licensees that they develop a new band plan. An industry "white paper" resulted. Based on that white paper and the comments filed in response to it, the FCC released a Notice of Proposed Rulemaking that opens the door to dramatic changes.

**Channel Plan:** The FCC proposes to divide the MDS/ITFS band at 2500-2690 MHz band into two or three separate sections in each market. One section would be reserved for operators that intend to continue providing high-powered video services over their entire service areas. The other portion(s) of the band would be established for low-power, cellular-type operations to deliver mobile broadband services.

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*In one of its more controversial proposals, the FCC suggests auctioning unused ITFS spectrum, possibly for commercial use.*

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### Protected Geographic

**Areas:** The FCC believes the current site-based licensing scheme should be replaced with geographic service areas. As with PCS and other services licensed geographically, licensees could construct facilities anywhere within their service areas, so long as the power levels at the boundaries do not exceed a predetermined limit. As discussed below, part of this plan entails ITFS auctions to overlay new licenses on unused spectrum, much as was done for the MDS channels in 1996.

### Transition to New Band Plan:

The white paper proposed a transition to the new band plan driven by "proponents" on a market-by-market basis. As an alternative, the FCC suggests a plan similar to that used when PCS moved into occupied point-to-point spectrum: specified time periods for voluntary negotiations between newcomers and incumbents, then manda-

(Continued on page 6)



## 4.9 GHz Public Safety Rules Set

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The FCC has fleshed out the rules for licensing and use of 50 MHz of spectrum newly allotted for public safety purposes.

Flexible use is the hallmark of the licensing scheme. A public safety entity can be authorized for the entire band within its territorial jurisdiction. And it can use the spectrum for broadband operations as varied as real-time video from inside burning buildings, fixed hot-spot access to the Internet, and temporary fixed point-to-point operations. Conventional voice communications are also permitted. Because multiple public safety entities often operate in the same jurisdiction, nearby licensees may have to coordinate shared usage.

The element of the plan generating the most controversy is the eligibility provision. Only entities providing "public safety services" -- entities whose sole or principal purpose is to protect the safety of life, health, or property -- can qualify. But those are encouraged to share the spectrum with non-eligibles such as utilities, railroads, and other entities acting in support of public safety. One Commissioner expressed concern that the spectrum might be converted to commercial applications as means of generating revenue for the public safety community -- not what the FCC had in mind.





*Congratulations! -- You've Won a Free Vacation!*

## Dear, It's For You

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**T**ired of telemarketing calls at dinnertime? So are we. But help is on the way. Twelve years after Congress okayed it, the National Do-Not-Call list may finally become a reality. For the FCC, that reality includes a hefty requirement to coordinate, reconcile, and analyze the various enforcement efforts needed to make The List an effective way to silence that annoying ring.

Back in 1991, Congress authorized the FCC to set up a list of telephone subscribers who opt not to receive solicitations. The FCC instead chose an alternative scheme based on company-specific lists. But telling Company A not to call did nothing about Companies B through Z. And a determined Company A could always reorganize under a different name and start calling you again.

Late last year, the Federal Trade Commission (FTC) released an order establishing a National Do-Not-Call registry. Subscribers can begin signing up this July 1, and the registry will go into effect October 1.

Last month, Congress instructed the FCC to consult and coordinate with the FTC, and to issue final FCC rules on a national list by September 7, 2003. In a hasty proceeding already underway to meet that deadline, the FCC seeks comment on just what its rules should say.

The telemarketing industry is not about to hang up and go home. Its members believe they have a first-amendment constitutional right to disturb people in the privacy of their homes. (Don't tell that to a lawyer with a mouthful of milk.) But court challenges take time, even when they ultimately lose, so don't turn off the answering machine just yet.



*(Continued from page 5)*

tory negotiations, and finally compulsory conversions, here based on the reduction of power levels. One main focus is determining who will pay for the changes -- especially relevant for the ITFS licensees, who will likely be required to renegotiate the excess capacity leases that provide them with revenue.

**Technical Issues:** Noting that high and low power facilities may be operating in close proximity, possibly in adjacent markets, the FCC seeks comment on technical rules for the mobile band, particularly the appropriate power levels and emission requirements. Also up for discussion is a proposal for unlicensed underlay services in the band.

**Standardization:** The FCC asks about standardizing the MDS/ITFS rules with the others administered by the Wireless Bureau, and whether it should consolidate MTS/ITFS -- now spread over three different parts of the FCC's rulebook -- under Bureau jurisdiction.

**ITFS Auction:** In one of its more controversial proposals, the FCC suggests auctioning unused ITFS spectrum, possibly for commercial use. The FCC notes that ITFS licensees have long been able to lease time on their

channels for commercial use, and tentatively concluded that an auction of the unused spectrum would be neither contrary to the public interest nor unlawful.

**Freeze On Applications:** Having the greatest immediate impact is a freeze on filing of new and major change applications for ITFS and MDS licenses until new rules are adopted. Some licensees and their trade association have asked for reconsideration of this ruling. One possible resolution is a lifting of the freeze under limited circumstances, on a showing the licensee actually intends to construct new facilities in the near term.

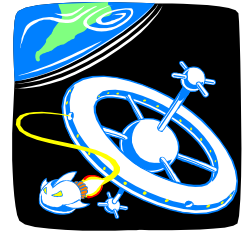
Overall, it appears the FCC is serious once again about rethinking the MDS and ITFS industries. No doubt the FCC was also serious in 1996, when it auctioned the MDS overlay licenses; in 1996, when it permitted digital emissions; 1998, when it permitted two-way operations; and in 2001, when it authorized mobile uses of the spectrum. Some providers have found it difficult to build out a viable service in the constantly shifting regulatory framework. Perhaps this rulemaking will strike on the FCC's final vision of the MDS and ITFS services -- at least for now.

Comment and reply dates are not yet available, pending publication in the Federal Register.

Space . . . the final frontier

## Space Station Licensing Updated

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**T**he FCC has adopted a "first-come, first served" licensing process for geostationary (GSO) satellite applications, excluding Direct Broadcast Satellite (DBS) and Digital Audio Radio Satellite (DARS). Other GSO applications will now be granted in the order they arrive at the FCC, and should be processed and granted within 180 days.

Applications for non-geostationary (NGSO) satellites will be subject instead to a streamlined processing round approach. When an NGSO application reaches the top of the processing queue, the FCC will invite other interested parties to file competing applications by an announced cut-off date. All timely filed applications will be considered together, and the FCC will split spectrum equally among all qualified applicants. The NGSO process is expected to take 270 days from application filing to grant.

Additionally, the FCC has lifted previous restrictions on the sale of bare satellite licenses. To deter speculation, licensees will have to post bonds of up to \$7.5 million within thirty days of receiving licenses, and will

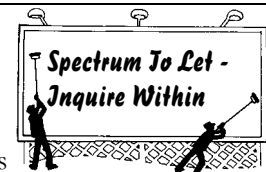
forfeit if construction milestones are missed. (These bond provisions replace the FCC's prior requirements on financial qualifications.) GSO applicants will be limited to no more than five pending license applications or unbuilt systems licenses, and NGSO applicants to no more than one pending license application and one unbuilt system license. The new processes will entail more construction milestones and stronger enforcement, and will mandate electronic filing of space station applications.

In order to facilitate an orderly transition, the FCC adopted a freeze on the filing of all new satellite license applications until a summary of the FCC's decision is published in the Federal Register. The freeze will not apply to DBS and DARS applications, or to applications for replacement satellites, modifications to existing satellite licenses, or requests for special temporary authority.

An Order dealing with the mitigation of orbital debris has been deferred from the satellite licensing proceeding to a forthcoming, separate docket.



## FCC OKs Secondary Markets for Spectrum



**T**he much-touted "spectrum shortage" is a myth. In fact, most of the spectrum is vacant most of the time. Turn on a spectrum analyzer in the heart of a supposedly spectrum-congested city. The local broadcast frequencies and cell and PCS phone bands will show steady, concentrated activity -- but elsewhere, nothing but isolated, short-lived spikes. There is a shortage, to be sure, but not of spectrum as such. The problem is a dearth of *unlicensed* spectrum. But vast amounts of licensed spectrum are used only lightly, while many would-be providers cannot obtain spectrum at all.

A second-grader could solve this one: Let the people who have spectrum and don't need it lend it to the people who need it but don't have any. An economist (or a fourth-grader) would acknowledge that money must change hands in the opposite direction. The result? Spectrum leases.

The obstacle to implementing this simple solution lies in a 1934 statute. In its present wording, the law prohibits an FCC licensee from transferring away "any rights" under its license without prior FCC approval. And getting that approval has been a slow and expensive process. The statute made sense back in 1934, when the FCC wanted to keep track of the powerful AM broadcast stations that accounted for most of the extant licensees. But when the FCC applied the statute to non-broadcast facilities, in the infamous 1963 *Intermountain Microwave*, it required the licensee to be firmly in charge of every aspect of running the licensed station. For 40 years, that decision has kept spectrum in the hands of people who don't need it.

Now the FCC has overthrown *Intermountain Microwave* and announced it will let licensees lease spectrum to

(Continued on page 8)



*(Continued from page 7)*

others. The new rules apply to most licensees holding exclusive rights to their spectrum. These include, for example, cellular, PCS, SMR, LMDS, fixed microwave, 24 GHz, and 39 GHz -- but not broadcast spectrum.

The new procedures set out three options. They vary in time scale, FCC approvals required, and the party responsible for maintaining compliance with the license.

"Spectrum manager leasing" has no time limit, and does not need prior FCC approval, although the parties must notify the FCC of their plans 21 days in advance. The licensee is responsible for ensuring that the lessee maintains compliance with spectrum-related rules.

"Short-term leasing" cannot exceed 360 days. Prior FCC approval is required, but will be granted (or denied) on an expedited basis, ordinarily within ten days. The FCC will look to the lessee for compliance with FCC rules, except those that are inherently long-term in character, such as certain use restrictions, designated-entity and entrepreneur policies, and spectrum aggregation issues.

"Long-term leasing" has no lower time limit, but is required for leases that exceed 360 days. Prior FCC ap-

proval is required. Applications will be placed on public notice and automatically deemed granted after 21 days, unless pulled aside for more detailed review. The lessee must answer to the FCC for compliance with all rules and license conditions, with the licensee's responsibility limited to actual or constructive knowledge of violations.

Where the parties prefer not to lease, and instead seek an outright transfer of the license, the FCC will deem its approval granted 21 days after public notice, barring special problems.

Finally, a Further Notice of Proposed Rulemaking asks about mechanisms that might help a secondary market in spectrum operate more efficiently. It also seeks input on how the FCC can extend the reach of its new secondary market policies, forbear from regulating some transactions altogether, and speed up approvals for others.

But that 1934 statute -- the one requiring prior FCC approval for transfer of rights -- is still in force. Not a problem, say four of the five Commissioners, who believe the new rules comply with the statute. The fifth Commissioner disagrees, and accordingly dissented, with a request to Congress to step in and make the new policies lawful.