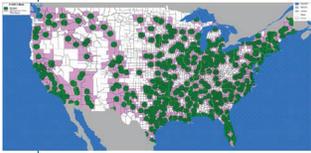


# FHH Telecom Law

July, 2013

Current Issues in Telecommunications Law and Regulation

No. 13-03



## EBS Industry Players Push For Expanded GSAs, New Filing Windows

By Tom Dougherty  
dougherty@fhhlaw.com  
703-812-0409

Take a look at a map of the service areas assigned to licensees in the Educational Broadband Service (EBS). You might expect to see a coherent pattern of similar coverage areas effectively blanketing, in the aggregate, entire states (perhaps even with particular stations' contours coterminous with state boundaries). You'd be disappointed. What you'll see instead is a crazy quilt of circles, trapezoids, crescents, half-moons, triangles – shapes differing from channel to channel. And beyond that, there are multiple areas that don't happen to sit within *any* EBS station's coverage.

But change may be on the way, if a group of EBS licensees has anything to say about it.

The group, led by the National Educational Broadband Service Association (NEBSA), has presented the FCC with a "[Joint Industry Proposal](#)" (the Proposal) looking to expand all existing EBS service areas, called Geographic Service Areas (GSAs), so they'll be coterminous with the county boundaries touched by the edges of the GSAs. And, perhaps more importantly, the Proposal includes a three-stage approach to licensing [all the EBS spectrum that has lain fallow for years](#).

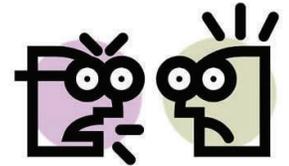
The EBS, of course, is a wireless service used both to provide wireless services to educators and, on an ancillary basis, to provide commercial wireless services. EBS licensees, themselves noncommercial entities, often lease their excess channel capacity to unaffiliated wireless operators who provide the commercial services. (Most prominent commercial provider: Clearwire.)

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## Harmonic Convergence?

### Are FM Stations Really Interfering with 700 MHz LTE Service?

By Peter Tannenwald  
tannenwald@fhhlaw.com  
703-812-0404



The introduction of different species into an established ecosystem tends to be a dicey proposition. Almost invariably, co-habitation requires the sharing of scarce resources. And more often than not, the different species approach the whole sharing thing in different, not entirely compatible, ways. The result: occasional dissatisfactions and frustrations – leading to occasional inter-species frictions and fisticuffs.

Take the RF spectrum ecosystem, for example.

Most inhabitants of the spectrum have historically figured out ways to coexist in relative peace (at least for the most part) – thanks largely to the fact that the potential impact of one service on another has been taken into account in the frequency allocation process. But as the demand for spectrum increases, and every little niche is filled up, it is becoming more difficult to avoid inter-service conflicts. And sure enough, the introduction of a recent new species – 700 MHz wireless systems using LTE equipment – seems to be causing some unexpected problems.

Since January, 2012, spectrum that used to constitute TV channels 52 and up has been reallocated to 700 MHz wireless services. Television still occupies channels 51 and down ([at least for the time being](#)), and there has been much hand-wringing over how the relatively low power wireless services will be able to coexist in such close proximity to high-powered TV stations.

Now it turns out that another problem – less anticipated – has reared its ugly head. Wireless operators using high gain LTE antenna systems and high gain LTE receivers have experienced interference which, they claim, is caused not by TV but by nearby FM stations. FM stations? How can that be, since FM stations operate in the 88-108 MHz band, far away from 700

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Government to the rest of us: “Do as we say, not as we do”



## CPNI Protections Extend to Some (But Not All) Data Stored on Mobile Devices

By Paul J. Feldman  
feldman@fhhlaw.com  
703-812-0403

**I**rony alert! As [questions mount about the government’s access](#) to consumers’ private communications – both telephonic and digital – the [FCC has issued a Declaratory Ruling \(Ruling\) advising wireless carriers of their obligation](#) to protect the privacy of their customers’ information. So even as the government acknowledges that its own treatment of such information may not have been as confidential as had previously been represented, the government is imposing arguably new confidentiality burdens on both large and small mobile carriers.

Essential governmental principle at work: do as we say, not as we do.

What’s at issue here is the protection of Customer Proprietary Network Information (CPNI), but in a relatively new setting. Generally, CPNI consists of certain customer information – including such data as the customer’s specific calling plans, special features, pricing and terms, and details about whom they call and when – that is deemed “proprietary”. (The official statutory definition of CPNI may be found in [Section 222\(h\)\(1\) of the Communications Act](#).) The law requires that carriers go to great lengths to keep CPNI confidential: carriers can use, disclose, or permit access to individually identifiable CPNI *only* in limited circumstances relating to their provision of telecommunications services or with customer consent.

Historically, the FCC has focused on how carriers collect, retain and use CPNI in their internal, “back-office” systems. But in 2011, a new risk to CPNI surfaced, a risk *not* in the carriers’ internal systems, but in the consumers’ own individual devices. It turns out that those devices include software – installed by the carrier or by the manufacturer at the carrier’s request – that captures a wide range of data for diagnostic purposes and preserves those data in the device itself. The data are available both to the carrier, to help improve overall network performance, and to its customer-service reps, to help them assist individual customers with problems. Some of those data include precisely the type of information (*e.g.*, dialed phone numbers and calling behavior, location coordinates, mobile subscriber numbers) subject to CPNI protection.

In 2011, a researcher found that that device-resident information could be accessed by third parties through security vulnerabilities in the collecting software. Oops.

The primary culprit identified in 2011 was [Carrier IQ](#), a program used by various carriers to obtain data on the operation of their respective networks. (While Carrier IQ is the only such program specifically identified by the FCC in the Ruling, there are undoubtedly others out there that do the same or similar things.) Once Carrier IQ’s apparent susceptibilities surfaced, the Commission examined the relevant law to determine whether changes were necessary to assure CPNI protections. The Ruling is the result.

In its Ruling, the Commission emphasizes that the collection of data on a consumer’s individual device – including data routinely entitled to CPNI protection – is legitimate and potentially beneficial to the carrier and the consumer alike. In other words, *the collection of such data is permissible and CAN continue*, regardless of whether any or all of the data so collected are CPNI. That’s the good news for carriers.

The not-so-good news: if a carrier is responsible for the collection of CPNI – whether that collection occurs in the carrier’s internal system or on the customer’s device – the

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### FLETCHER, HEALD & HILDRETH A Professional Limited Liability Company

1300 N. 17th Street - 11th Floor  
Arlington, Virginia 22209  
Tel: (703) 812-0400  
Fax: (703) 812-0486  
E-Mail: [editor@fhhlaw.com](mailto:editor@fhhlaw.com)  
Web Site: [fhhlaw.com](http://fhhlaw.com)

#### Editor

Donald J. Evans

#### Design

Harry F. Cole

#### Contributing Writers

Denise Branson, Tom Dougherty,  
Paul J. Feldman, Mitchell Lazarus,  
Cheng-Yi Liu, Jon Markman,  
Rob Schill and Peter Tannenwald

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Meet the new boss(es) . . .



## Return of the Revolving Door

*New and upcoming changes on the 8th Floor*

By Donald Evans  
evans@fhhlaw.com  
703-812-0430

Commissioners Jessica Rosenworcel and Ajit Pai have by now settled comfortably into their digs on the 8th Floor of the FCC after an unusually long confirmation process last year. Not long after their arrival, however, Commissioner McDowell and Chairman Genachowski announced their departures for presumably greener pastures. Particularly in the bad old days before the Obama administration, there was a disturbing, if not alarming, tendency for FCC commissioners to leave the FCC and head directly for lucrative employment in the private sector where they would advocate on behalf of the very entities they used to regulate. Commissioner Baker, for example, raised some eyebrows when she left the Commission after voting to approve the Comcast-NBC merger, and immediately took up residence at – you guessed it – Comcast. While she denied any quid pro quo, it certainly created, if nothing else, an appearance of favoritism.

There used to be much hand-wringing among the nattering classes here in Washington about the “revolving door” by which industry insiders would move smoothly from private industry into high government positions and then back out again, having established good contacts and industry-friendly policies while on the inside. The counter-argument has always been that the best people to regulate an industry are the ones who know it. And when people who know industry leave government, they naturally want to go back to what they know best. Perfectly reasonable, but hence the revolving door.

The Obama administration charged into office determined to make government more transparent and eliminate both the reality and the appearance of government by insiders. Appointees were therefore obliged to pledge not to lobby any covered executive branch official or non-career Senior Executive Service appointee for the remainder of the administration and, further, to abide by certain restrictions on communication with employees of their former executive agency for two years.

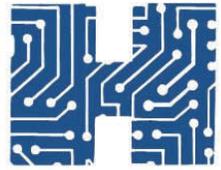
But where there is a will there is a way. The current way is for Commissioners to resign from the FCC and immediately set up a temporary tent at a think tank or policy institute where they can think great thoughts based on

*(Continued on page 15)*

But is it the right stuff?

## FCC Opens Door to New Kids on the (H) Block

By Cheng-yi Liu  
liu@fhhlaw.com  
703-812-0478



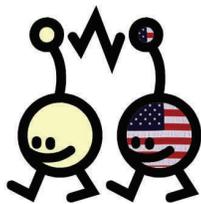
Earlier this year the Commission solicited public comment on its proposals for “unleashing” H Block spectrum for commercial licensing. In case you’ve forgotten (you can also refresh your memory [here](#)), the H Block consists of the 1915-1920 MHz and 1995-2000 MHz bands. Congress directed the Commission to license this spectrum using competitive bidding as long as the H Block spectrum could be used without causing harmful interference to the neighboring PCS downlink band (1930-1995 MHz).

Well, the folks at the Commission have decided that the H Block kids can indeed play nice with their PCS neighbors. Of course, the parental units at the FCC have also adopted a set of rules, including appropriate power and out-of-band emission limits, for the H Block kids to help ensure that they don’t cause any trouble. According to the FCC, the rules are only intended to prevent “harmful interference” but not necessarily all “detectable interference.” Parents can only do so much to protect their kids, right?

The “Service Rules” for this band follow for the most part the by now familiar renewal, buildout, and discontinuance policies that have been applied other new services. Here are a few highlights from the Commission’s recent H Block Report and Order.

- ☞ H Block licenses will be issued on an Economic Area basis using a system of competitive bidding (auction schedule yet to be announced).
- ☞ Since the H Block is adjacent to the broadband PCS band, it would be possible for a single entity to obtain licenses for both bands in the same area and “seek to deploy a wider channel bandwidth in that area across both bands.” The Commission is okay with that, as long as the combined operations adhere to the more restrictive set of rules in situations where interference or technical rules for the two bands should differ. Sprint, the holder of the adjacent PCS band, is the only potential beneficiary of this rule.
- ☞ License terms and renewal terms will be for ten years. But licensees failing to meet interim buildout

*(Continued on page 17)*



The FCC asks:

## Should Government and Private Users Share Radio Facilities?

By Mitchell Lazarus  
lazarus@fhhlaw.com  
703-812-0440

This [Notice of Proposed Rulemaking \(NPRM\)](#) looks to alter the way in which certain spectrum is to be shared between the government and private users. At first glance it is about as tedious and picky as anything coming out of the FCC. But it may signal the beginning of the end of a basic tenet of U.S. spectrum management.

Radio spectrum is allocated separately for federal and non-federal use. Take a look at the official Table of Frequency Allocations (or type a frequency into this unofficial but [easier-to-use version](#)). Notice the separate federal and non-federal entries. Federal spectrum is regulated by the [National Telecommunications and Information Administration \(NTIA\)](#) through its [Office of Spectrum Management](#). Non-federal spectrum, also called “private” or “commercial,” comes under the jurisdiction of the FCC. To be sure, some spectrum is allocated jointly for federal and private use, regulated by the two agencies acting cooperatively. But even then, NTIA manages federal users operating federal equipment, while the FCC oversees private users working with private equipment.

The federal-private distinction, basic to the statutory scheme of U.S. communications law, has worked successfully for decades. Now, though, it is starting to come unglued.

We might have expected the fault lines to emerge in connection with very new technologies. Surprisingly, they are appearing instead in the well-established field of communications with satellites and spacecraft.

The federal-private split extends to the frequencies used for satellite communications, and also to the earth stations and to the satellites themselves. Ordinarily, federal agencies operate federal earth stations, using federal spectrum to communicate with federal satellites, while private users rely on private earth stations using private spectrum to communicate with private satellites. Still, the regulatory membrane separating the two has never been completely airtight. In particular, federal earth stations have long been allowed to operate with private sat-

ellites, so long as they do so on a non-interference basis, giving priority to private earth stations.

Back in 2006, [NTIA asked the FCC to change these rules](#), so that federal earth stations communicating with private satellites would be “co-primary” with private earth stations in certain bands. That would put federal and private users on an equal footing by requiring each to protect the other’s operations in those affected bands.

The frequencies at issue are 3.6-4.2, 5.85-6.725, 10.7-12.2, 12.7-13.25, 13.75-14.5, 18.3-19.3, 19.7-20.2, 27.5-30, 37.5-39.5, and 47.2-50.2 GHz. Most of the operations in question are fixed satellite; some are mobile satellite.

Complicating matters, several of the bands are shared in part with private terrestrial fixed microwave users.

The private satellite and fixed microwave industries responded to the NTIA request, back in 2006, with cautious support. Private satellite interests wanted to be sure

that the federal earth stations would be subject to the same technical and enforcement rules as private earth stations, and particularly, that applications for private earth stations would not be delayed for coordination with NTIA. Private fixed microwave interests wanted assurance that federal earth stations would conduct advance frequency coordination under the same procedures as do private earth stations. That industry likewise was concerned about delays, and mentioned ongoing problems in coordinating with federal fixed service users in the shared 23 GHz band.

The FCC now proposes to grant NTIA’s request, subject to four objectives:

- ❓ parity between federal and private earth stations;
- ❓ continuing FCC oversight of the private satellite network, even though NTIA would authorize federal earth stations;
- ❓ no delay to the FCC’s rulemaking or licensing, or

(Continued on page 18)

*The federal-private distinction is starting to come unglued.*

*What, no sequester dividend?*

## FCC Proposes Alternative Regulatory Fees

By Denise Branson, Paralegal  
branson@fhhlaw.com  
703-812-0425



Each year the FCC is required by Congress to collect enough fees from its regulatees to recover operational costs. This year Congress set the FCC's nut at \$339,844,000. (Note that the FCC's actual costs are technically lower thanks to the sequester, but the nut remains the same because of Congress's appropriation.) The Commission issued a [Notice of Proposed Rulemaking \(NPRM\) laying out two alternative sets of possible fees](#) because it's in the process of a much-needed update of its calculation methodology, and it has yet to decide whether any new approach should be implemented this year. The NPRM proposes changes that will take place in FY2013, FY2014, and possibly FY2015.

The Commission allocates the total amount it must collect based on the number of full-time FCC employees (FTEs) devoted to the various fee categories carried out by its various bureaus. Currently the FCC is using FTE data from 1998. (Those interested in delving more deeply here may want to check out [my blog post from last fall](#).) The Commission has updated FTE numbers (using September, 2012 figures) and its overall inter-Bureau allocations have changed quite a bit over the last 14 years.

Implementing the updated allocations will shift the regulatory burden from the 1998's top industries to today's top industries. Specifically, the Wireline Bureau's burden would decrease significantly – from 46.7% to 29.2% – but the International Bureau's burden would increase significantly – from 6.3% to 22%. However, the Commission proposes to cap rate increases at 7.5% for this year and is entertaining the possibility of extending this cap into 2014 . . . and possibly beyond. But presumably recognizing that any change – and particularly unexpected substantial change – can cause discomfort, the FCC suggests it might maintain its historical allocations at least for purposes of calculating the FY 2013 fees.

The Commission is also taking a fresh look at how its FTEs should be allocated directly to the Core Bureaus – Wireline, Wireless, International, and Media – and indi-

rectly based on proportional use. As a consequence, the FCC proposes to remove the International Bureau's designation as a Core Bureau and to reallocate most of its FTEs indirectly. This action would greatly reduce the number of direct FTEs allocated to the submarine cable industry.

Regulatory fees for Interstate Telecommunications Service Providers (ITSPs) are assessed based on end-use revenues reported on FCC Form 499-A each April. Due to the declining revenue base supporting the same regulatory burden, the assessment rates have generally increased over time for ITSPs. Alternatively, wireless providers have seen their revenues increase, while the regulatory rate remained steady, effectively reducing the regulatory burden. The Commission agrees with the Independent Telephone and Telecommunications Alliance (ITTA) that these services are comparable. Therefore, it proposes to include both in the same allocation for a uniform regulatory fee rate. At present, recognizing that a revenue-based method of assessment could be easily overcome by allocating revenues to data services, the Commission is looking for a fair, sustainable, and predictable method for assessment. (Interestingly, they are also considering whether revenues are a more appropriate assessment measure for other industries.) This proposal, if adopted, is expected to take effect in FY2014.

Other changes include: (i) assessing regulatory fees on Internet Protocol TV (IPTV) to eliminate a disadvantage to cable providers that provide a similar service; (ii) accounting for dramatic year-to-year fee category fluctuations for multi-year wireless services; and (iii) developing a definition for “declining industries” and modifying the methodology for collecting regulatory fees from declining industries.

The Commission is expected to issue this year's regulatory fee order soon. The fees are generally due in late August or early/mid-September. Check with [www.CommLawBlog.com](http://www.CommLawBlog.com) for updates.

*Currently the FCC  
is using FTE data  
from 1998.*



*Unlicensed interests unsuccessful*

## FCC Authorizes Progeny over Part 15 Objections

By Mitchell Lazarus  
 lazarus@fhhlaw.com  
 703-812-0440

The [FCC has authorized Progeny LMS, LLC](#) to begin commercial operation of its Location and Monitoring Service (LMS) network. Progeny's system uses part of the 902-928 MHz band, which is heavily occupied by unlicensed devices regulated under Part 15 of the FCC rules. The FCC action came over vigorous objection from the companies that make and use Part 15 equipment.

“So what?” knowledgeable readers will ask. After all, unlicensed devices always have to accept interference from licensed services like LMS.

Not quite always. When the FCC authorized LMS back in 1995, the 902-928 MHz band was already home to a very large array of unlicensed devices serving both consumers and industry. (Their number, variety, and importance have increased many-fold in the years since.) To ensure that LMS did not obliterate unlicensed usage, the FCC adopted a [unique rule](#): certain LMS licenses are “conditioned upon the licensee’s ability to demonstrate through actual field tests that their systems do not cause unacceptable levels of interference to [Part 15] devices.”

Fast forward to 2011, when LMS licensee Progeny requested and [was granted a waiver](#) that permitted one-way service and the location of assets other than vehicles. The waiver grant re-triggered the field testing requirement. Progeny conducted four sets of tests and submitted the results to the FCC, which then duly [requested comments](#) about the results. Providers of unlicensed wireless Internet service and manufacturers of unlicensed automatic meter reading equipment – both of which require reliable operation – [challenged the conclusions](#). They claimed the tests used too few unlicensed devices, non-representative devices, and conditions artificially rigged to understate interference.

*Don't unlicensed devices always have to accept interference from licensed services like LMS?*

At the request of the FCC staff, Progeny and some of the Part 15 interests conducted [further tests](#) on meter-reading and Internet delivery equipment. The FCC [requested further comment](#). Again, the two sides disagreed on how to interpret the results. Along with claiming actual interference, the Part 15 companies continued to insist that Progeny's tests omitted a large range of unlicensed devices and conditions, and that more testing is needed to properly evaluate the impact of Progeny's transmitters.

The FCC has now [dismissed those arguments](#).

Part of the dispute turns on the requirement that Progeny not cause “unacceptable levels” of interference to unlicensed devices. The FCC has never before spelled out what that means. Now, it tells us the “unacceptable levels” limitation calls

on LMS licensees merely to “minimize” interference to Part 15 devices, but not necessarily to eliminate it altogether. A different reading, says the FCC, would elevate Part 15 in status above LMS, which the rules never intended. Moreover, the FCC goes on, unlicensed users should know to expect some level of interference, and have the option of using equipment that is capable of shifting to other parts of the band when needed. Progeny need not test with every type of Part 15 device, the FCC adds, as that could result in endless rounds of testing.

Progeny offered to: report periodically on its build-out and any interference complaints it receives; establish a toll-free help desk for Part 15 users experiencing interference; and, if it constructs in rural areas, work with local wireless Internet service providers on mitigating interference. The FCC required the first two conditions and encouraged the third.

**Editorial comment:** The enormous success of the

*(Continued on page 7)*

*Back to Square One*

## FCC Bars Transfer of New Kinds of Experimental License

By Mitchell Lazarus  
 lazarus@fhhlaw.com  
 703-812-0440



Last February, when the FCC overhauled its rules to create [new kinds of experimental licenses](#), it omitted mention of whether the licenses could be transferred to another party, as by assignment or transfer of control. Now [the FCC has spoken](#).

The answer is no.

The February order set up three new categories:

- ✓ “program experimental licenses” for certain colleges and universities, research laboratories, manufacturers, and health care institutions;
- ✓ “compliance testing licenses” for FCC-recognized test labs; and
- ✓ “medical testing licenses” for health care facilities conducting clinical trials of wireless medical technologies.

Each of these categories has its own stringent standards for eligibility. None has yet taken effect, pending approval by the Office of Management and Budget. (The FCC left unchanged the current species of experimental license, which is available to pretty

much anyone.)

The FCC has now decided that licenses in the three new categories may **not** be assigned or transferred. The task of ascertaining eligibility is sufficiently complex that the FCC would rather start fresh with an application for a new license.

The ruling sets up a potentially deadly trap for companies that acquire others, or that transfer technology-related assets. Ordinarily the two companies’ lawyers go through a well-worn routine of filing requests to assign or transfer two-way radio licenses, FCC certifications, and various other commonplace authorizations. (Transactions involving broadcast, satellite, and some wireless licenses are more complex.) Now, though the acquiring company may have to take on the additional step of applying anew for its own program experimental, compliance testing, or medical testing license. Processing at the FCC may take time. Worse, we can foresee situations in which the acquiring company may not qualify for the license.

Our best advice: plan ahead.

*(Telephone Number NPRM - Continued from page 6)*



FCC’s rules permitting – indeed, promoting – unlicensed operations has, ironically, caused problems for the agency. When the most-used parts of the current regime took effect in 1985, no one dreamed that unlicensed radio devices would become as prevalent as they are now. Because these devices have always been required to accept interference, the initial uses focused on applications that did not require great reliability. But as the decades went by, and the technologies used in Part 15 equipment evolved to become more robust against interference, the devices found use in more critical applications, including the control of overhead cranes, pipeline systems, and electric utilities.

“Robust,” though, is a relative term. Equipment that works perfectly well in the pre-existing 902-928 MHz environment of ISM, federal radar, amateur radio, and other Part 15 devices may falter when exposed to new interference sources, such as LMS. Yes, the rules say Part 15 users must accept interference and operate at their own risk; and yes, Progeny has a legal right to deploy, if it satisfies the field test requirement. Still, Part 15 equipment has become so important to so many industries – and to the economy generally – that it may have earned a higher status in the spectrum.

(Full disclosure: FHH represented clients in this proceeding.)

*'Scuse me while I kiss the sky.*



## FCC Proposes Domestic Air-to-Ground System for Airborne Wi-Fi

By Jon Markman  
markman@fhhlaw.com  
703-812-0493

The FCC is looking to expand the use of wireless services, particularly in-flight Wi-Fi, on aircraft traveling over the contiguous United States. In a [Notice of Proposed Rulemaking](#) (NPRM), the FCC has proposed the establishment of a new air-ground mobile broadband service in the 14.0-14.5 GHz band. The proposal was first advanced by Qualcomm, which hopes to augment the recently authorized (just last December) [satellite-based connections](#) to aircraft with a nationwide network of air-to-ground stations that would allow plane passengers to connect more easily and cheaply to the Internet. Unlike satellite connections (which work anywhere), the new system would work only while the plane is in U.S. airspace, but would provide far greater bandwidth for on-board users to share. The FCC sees – and wants to accommodate – the growing demand for in-flight Internet access, while increasing competition, improving service, and lowering prices.

*Those with long memories may find the north/south scheme familiar.*

The proposed service poses potentially difficult technical issues. It would use the 14.0-14.5 GHz band, but only on a secondary, non-interfering basis. The current primary allocation is to the Fixed Satellite Service, available for in-flight Wi-Fi and a host of other uses. The FCC thinks it can achieve compatibility through “spatial diversity” rules, which would limit the directions in which antennas can point. Since the 14.0-14.5 GHz band is used for sending transmissions from the Earth towards satellites orbiting over the equator, U.S. earth stations all point south, more or less. Antennas in the proposed system would point north (in the case of ground stations) or downwards (in the case of the antennas on the aircraft), which should reduce their interference with satellite users.

Those with long memories may find the north/south scheme familiar. In the 1990s, a company called NorthPoint proposed to share the 12.2-12.7 GHz broadcast satellite band by transmitting fixed terrestrial signals in a southward direction. Since all home dishes in North America aim toward the south, NorthPoint reasoned, a southward-directed beam would hit the backs of the dishes and not cause interference. After extensive tech-

nical and political dispute, including debates in Congress, the FCC auctioned off the band for this use in 2004.

It may be as contentious to devise an air-ground system a system that avoids interfering with the satellite uplinks while connecting thousands of planes that move around the country at hundreds of miles per hour. Also needing protection will be radio astronomy at 14.47-14.5 GHz. The FCC proposes requiring any prospective licensee in the air-ground broadband service to coordinate with the radio astronomers at the National Science Foundation to minimize interference.

The NPRM acknowledged, but didn't itself resolve, another petition proposing fixed service use of 14.0-14.5 GHz for certain “critical infrastructure” entities. The decision on that came down just a few days after the NPRM, with the FCC rejecting the petition as “not warrant[ing] consideration by the Commission.” The Wireless and International Bureaus, along with the Office of Engineering and Technology, disagreed with the petitioners that there was no need for an auction, since their proposed use would include for-profit use alongside the “critical infrastructure” use. They also had concerns about interference into the fixed satellite uplinks (similar to the issue they're hoping to resolve with the proposed air-to-ground system), and questioned whether the proposal's frequency coordination system would effectively identify and resolve interference issues. The UTC filed an Application for Review of the rejection, with the comment period closing on July 11. (FHH represents a client in this proceeding.)

Even if the new air-ground broadband service is approved and implemented, the connection you get in flight may not be the connection you've come to expect at home or at work. It's not known what kind of speeds these connections would afford. (The NPRM, quoting Qualcomm, refers generally to “multi-gigabit” speeds, and there is mention of theoretical speeds up to 300 gigabits per second – although, as Commissioner Pai cau-

*(Continued on page 18)*

2.25 million reasons to get consent

## FCC Whacks TV Max

By Paul J. Feldman  
feldman@fhhlaw.com  
703-812-0403



If you've ever wondered what would happen if you retransmitted the programming of TV stations without their consent, and then dissembled about it to the FCC, listen up. If you go that route, you could be looking at a fine north of \$2,000,000. That's right – two MILLION dollars plus.

Do we have your attention?

We know about the likely penalty thanks to a [Notice of Apparent Liability For Forfeiture and Order \(Order\)](#) – directed to TV Max, Inc. *and* its affiliates *and* its individual controlling principals – for violating [Section 325\(b\) of the Communications Act](#) and [Section 76.64](#) of the Commission's rules. Those sections lay out the general retransmission consent rules governing multichannel video programming distributor (MVPD) carriage of over-the-air TV signals other than through the "must-carry" process. According to the *Order*, TV Max retransmitted the signals of six broadcast stations without obtaining their consent. For doing so, TV Max is looking at a proposed fine of \$2,250,000. Since the Commission has penalized MVPD's for retransmission consent violations only a couple of times in the past – and then only in the low five-figure range of \$15,000 (reduced from a maximum potential of \$250,000 or so) – we can probably assume that TV Max *really* ticked off the FCC.

*There was one big problem with TV Max's claim. It apparently wasn't true.*

In fact, the *Order* provides a model for how to infuriate the Commission. [Practice tip: We strongly recommend that MVPD's avoid this model.]

First, some background.

Under the must-carry/retrans consent system established by Congress a couple of decades ago, every three years TV stations elect how they will make their signals available to MVPD's for retransmis-

sion. The two choices: either (a) require the MVPD to negotiate to obtain the station's consent or (b) elect must-carry, which requires the MVPD to carry the TV signal subject to certain governmentally-imposed conditions. If a station elects retransmission consent, the MVPD may *not* (with at least one very narrow exception discussed below) carry the station's signal without the express consent of the station.

TV Max is an MVPD in the Houston area, providing service to approximately 10,000 subscribers in 245 apartment/condo buildings. It carried the signals of six Houston stations which had all elected retransmission consent. It had retrans consent

agreements with the six stations, but those agreements had all expired by March, 2012; the carriage continued well beyond that date.

The TV stations complained to TV Max, and then to the Commission starting in April, 2012. In response, TV Max had a story. It claimed that it was subject to the Master Antenna

TV (MATV) exception to the rules. Under that exception, the owners of a multi-unit apartment or condo building can put up a master antenna for their building and provide carriage of OTA TV signals to the building's units without the stations' consent, as long as: (a) the OTA signals are in fact received by the MATV facilities; (b) those signals are made available at the viewers' option and without charge to the viewers; and (c) the MATV antenna and facilities are under the ownership and control of a building owner or the viewers in that building.

So TV Max wrapped itself in the MATV exception, claiming that the signals were being delivered to the viewers through MATV facilities on each building.

*(Continued on page 19)*



Form 477 expansion plan

## FCC Expands Data Collection Program for Broadband/Voice Service Providers

Cheng-yi Liu  
liu@fhhlaw.com  
703-812-0478

**F**CC <3 DATA. (Translation from the 'net-speak: The FCC *loves* DATA.) In particular, the kind of data that broadband and voice service providers are required to report and that, presumably, assist the FCC in making informed policy decisions.

So we probably shouldn't be surprised that the FCC has decided to [collect even more of it through a modified "Form 477 Data Program"](#) as broadband and voice services continue to evolve (but not quite to [this level](#) . . .yet).

FCC Form 477 has been around since the turn of the century. Many providers of broadband, local and mobile phone, and interconnected VoIP services are already familiar with it, since they've had to file it twice a year for some time now. But get ready, the FCC has now made several changes to the types of data it will be collecting.

The changes are part of an overall Commission effort to comply with requirements of the [Broadband Data Improvement Act](#) and the FCC's own recommendations in the [National Broadband Plan](#). Also spurring the changes: next year the Commission will be assuming responsibility for collection of broadband deployment data under the [State Broadband Initiative](#) program. Historically, the National Telecommunications and Information Administration has taken care of that chore, but that's set to end in the fall of 2014.

So, starting most likely in 2014, through its modified Form 477 program the FCC will be collecting even more data about:

- ☐ "deployment" (*i.e.*, where a service is available, as well as the speed of and technology used for the service);
- ☐ "subscriptions" (*i.e.*, how many consumers are signed up for the service); and
- ☐ other provider-specific information.

The data collection specifics vary greatly by service and provider type, but here are a few highlights from the Report and Order.

- ✓ Fixed broadband data will be reported on a "[census block](#)" basis.
- ✓ Mobile providers (voice and broadband) will gener-

ally report by network coverage areas.

- ✓ Broadband providers will report maximum advertised connection speeds for fixed services and minimum advertised connection speeds for mobile services.
- ✓ Zip-code reporting for voice (fixed and interconnected VoIP) subscriptions will be replaced by more detailed reporting of data on a "[census tract](#)" basis.
- ✓ Filers will be required to submit additional company information, including Filer 499 ID numbers and emergency contact details.

While there are many changes to the particular data being collected, the Commission (thankfully?) didn't extend the Form 477 reporting obligations to any additional categories of service providers. The reporting obligations will continue to apply to "facilities-based" providers of broadband services to end user locations (including by cable, copper, wireless, mobile or satellite), local telephone services, and facilities-based mobile telephony services. The reporting requirements will also continue to apply to all providers of interconnected VoIP services. More detailed descriptions of the types of covered providers can be found in the current [Form 477 instructions](#).

Another piece of (semi) good news is that the Commission has directed the Wireline Competition Bureau to explore ways to make the Form 477 reporting process easier for all filers. In so doing the FCC specifically suggests the development and testing of a "client-side" software application which can be provided to filers to assist in complying with the data reporting requirements. If the deployment is successful, this would be, to our knowledge, the first piece of client-side software issued by the FCC. What's next, a mobile app for paying FCC regulatory fees?

As we've mentioned regularly in the past, new "information collections" are subject to the Paperwork Reduction Act review process, which can normally take several months (of paperwork, we assume). Those PRA review folks will certainly have their hands full with all the new information collection requirements in this item. We're not in any rush, though, and will patiently await publication of the effectiveness of the new rules in the Federal Register. As usual, check back with [www.CommLawBlog.com](http://www.CommLawBlog.com) (not too soon, in this case) for updates.

*The data collection specifics vary greatly by service and provider type.*

*A wag of the regulatory finger*

## FCC to Lifeline Service Providers: Obey the Rules

By Rob Schill  
schill@fhhlaw.com  
703-812-0445

The FCC has released two documents to remind Eligible Telecommunications Carriers (ETC's) participating in the Lifeline program that it is very, very serious about enforcing its existing rules.

(1) The Enforcement Bureau released an Enforcement Advisory restating that ETC's are liable for any violations of the existing Lifeline rules committed by their agents, contractors or representatives. Lifeline, of course, is the program to subsidize voice telephony (wireline or mobile) for eligible low-income Americans. After years of rampant waste, fraud and abuse in the program, the Commission adopted the 2012 Lifeline Reform Order. As the Commission put it, it was "particularly concerned that some ETCs are failing to ensure that their agents, contractors, and representatives adhere to the Lifeline rules." As one might reasonably expect, the Enforcement Bureau is "aggressively pursuing" such potential misconduct in the program.

*Why did the FCC  
take the time to  
reiterate its  
preexisting rules?*

ETC's must comply with strict requirements to verify subscriber eligibility. They are obligated to:

- ⊕ Implement policies and procedures to ensure subscribers are eligible to receive Lifeline service;
- ⊕ Confirm each subscriber's eligibility before activating Lifeline service;
- ⊕ Confirm each subscriber's eligibility before seeking reimbursement from the Universal Service Fund for that subscriber;
- ⊕ Require applicants to certify under penalty of perjury that they are eligible and that their households do not already receive Lifeline service;
- ⊕ Keep records detailing the documents or data source used to determine each subscriber's eligibility;
- ⊕ Provide Lifeline service only to qualified individuals who do not reside in households that already benefit from Lifeline service; and
- ⊕ Explain to subscribers that Lifeline is a government assistance program and the service is non-transferable – *i.e.*, it may not be sold or given to any other party.

Potential penalties for an ETC (for its own misconduct or that of its agents, contractors or representatives) include monetary forfeitures of up to \$150,000 for each violation or each day of a continuing violation, up to a maximum of \$1,500,000 for any particular act or failure to act. If particularly egregious, a carrier may lose its ETC status, or even its Section 214 authorization to operate as a carrier. False statements or misrepresentations to the FCC may lead to further forfeiture liability and criminal prosecution.

(2) The second document released was a Wireline Competition Bureau Order specifically codifying the 2012 Lifeline Reform Order requirement that ETC's verify a subscriber's eligibility for the program prior to activating service. ETC's "may not provide an activated device intended to enable access to Lifeline service to a consumer until that consumer's eligibility is fully verified and all other necessary enrollment steps are completed."

Additionally, the Bureau reminds us that Lifeline service cannot be transferred by a subscriber to anyone else, including low-income individuals who would otherwise be eligible themselves. This restriction must be disclosed to the consumer and included on the certification form.

These two actions are also reflected in the second and last bullets referenced above in the Enforcement Advisory.

Why did the Commission take the time to reiterate its preexisting rules? Clearly, the Commission wants to ensure proper administration of the program. Additionally, the Washington, D.C. [political journal \*The Hill\*](#) noted that the Commission's actions occurred shortly after "Project Veritas, a conservative organization led by activist James O'Keefe, released a video that shows distributors giving free Lifeline phones to people who said they planned to resell them. One of the recipients said he planned to use it for drug money."

Also, Rep. Tim Griffin of Arkansas has introduced H.R. 176, the Stop Taxpayer Funded Cell Phones Act, which would end the use of Lifeline funds for cell phone service and instead return the program to its original purpose, subsidizing traditional wireline voice services. The bill currently has 56 Members of Congress signed on as co-sponsors.



*(EBS Proposal - Continued from page 1)*

The oddly-shaped EBS service contours contrast sharply with the service areas assigned to commercial wireless services, which are amalgamations of counties or the jurisdictional equivalent (*e.g.*, the parish in Louisiana), configured to cover the entire county or other political unit. Look at a state map showing cellular service areas and you'll see those areas effectively blanket the state, with particular cellular license areas coterminous with county boundaries. Since commercial wireless operators are used to covering entire areas (and not oddly-shaped bits and pieces), the haphazard and disorderly arrangement of the EBS service makes the building and operation of a competitive wireless system on the foundation of EBS channels a challenge.

#### ***How did the EBS service areas get the way they are?***

The current haphazard GSA configuration is the result of the evolution of EBS spectrum regulation over its 50-year history.

When EBS was first authorized in the 1960s (original name: "Instructional Television Fixed Service", or ITFS), it featured no GSAs or other protected service areas. It was a point-to-point or point-to-multipoint service for the transmission of educational programming from a single transmitter site to specialized receivers at schools. The only protection afforded by the FCC was to each of the discrete receive sites, not to any broader area. As a result, two or more co-channel stations often were authorized to operate at distances as close as five miles from each other.

In the 1980s, the FCC relaxed its rules to permit ITFS licensees to use their "excess channel capacity" for uses other than the transmission of educational programming – and thus was born the wireless cable industry. By the early 1990s, the FCC was affording a protected service area to ITFS licensees who leased excess capacity to wireless cable entities. Initially, the protection extended for a 15-mile radius from the station's transmitter site.

By the mid-1990s, the FCC had given all of these licensees a 35-mile radius protected service area. But recall that, as originally authorized, ITFS stations were often near each other. As a result of the gradual expansion of protection, it became common for the protected 35-mile service areas of co-channel stations to overlap.

*The GSA approach left irregular service areas and gaps in coverage.*

In 2005, the FCC fundamentally changed the use of this spectrum. ITFS became EBS. Under the new rules, licensees could use their spectrum for any lawful purpose, including cell phone services and wireless broadband. EBS had evolved from a one-way television service to a two-way wireless service.

That evolution necessitated a new approach to protection. Introducing the GSA.

Instead of restricting each ITFS-now-EBS licensee to specific, license-designated transmitter sites, the new rules accommodated mobile uses by allowing licensees to establish multiple transmitter sites anywhere within each station's GSA, an area corresponding generally to the station's 35-mile protected service area. The additional transmission facilities are subject to certain antenna height and transmitter power restrictions designed to protect co-channel operations by other licensees in areas outside the GSA. As is the case with all other commercial wireless services, these multiple transmitter sites – or cell sites – can be constructed, operated and moved within the GSA without any separate FCC authorization.

The FCC recognized in 2005 that wireless service channels can't share GSAs in whole or in part. But the service areas of many co-channel stations already overlapped. To resolve this problem, the Commission assigned the overlap service areas – "football"-shaped areas formed by the overlap of the two circular protected service areas – to one or the other of the overlapping licensees in Solomon-like fashion. The FCC drew a line through the "football"-shaped overlap area and gave each licensee the portion on its side of the "football." The result: irregular service areas – some vaguely resembling cookies which have been bitten into, some even less recognizable.

Because it was essentially a retrofit designed to accommodate the distribution of ITFS-now-EBS facilities that had evolved over the decades, the GSA approach left not only irregular service areas but also gaps, *i.e.*, areas not covered by any service.

#### ***The Joint Industry Proposal to the rescue***

As noted above, the haphazard and disorderly arrangement of the EBS service complicates its use as part of a competitive wireless system. Enter NEBSA and its cohorts. Their Proposal would not only impose order

*(Continued on page 13)*



*(EBS Proposal - Continued from page 12)*

on the semi-chaotic EBS service area design that has gradually evolved, but also provide a road-map for the licensing of all currently unused spectrum that remains eligible for EBS licensing.

*Expanded GSAs.* With respect to existing services areas, the Proposal calls on the FCC to expand all existing EBS service areas to be coterminous with the county boundaries touched by the edges of the GSAs. Thus, if a channel's GSA is wholly contained within a single county, the GSA would expand outward to cover the remainder of the county, and the GSA would become the county. As another example, if a channel's GSA (a) were centered at the intersection of four square counties and (b) extended into but not beyond each of those counties, then the GSA of that channel would become the entirety of the four counties.

EBS licenses ordinarily authorize the use of a group of four channels. The proposed GSA expansion would be done on a channel-by-channel basis, rather than on a group basis. That's because the channels within a licensee's group often have different GSAs, and the expansion of any one channel to the edge of a partially covered county might be blocked by a co-channel station that also covers a part of that county; at the same time, though, another channel from the group might not experience that blockage. In the event that the GSA of one licensee's channel covered a part of a county and the GSA of another licensee's co-channel station covered another part of that same county, the two licensees would split that county. These proposed expansions of existing GSAs would occur automatically by action of the FCC upon release of a public notice announcing the expansions – no applications or notices of participation would be required.

*Additional filing opportunities.* After the GSA expansion announcement is released, the Proposal calls on the FCC to initiate a three-stage process for opening up all remaining EBS spectrum to applications. This would be the first such opportunity in more than 13 years.

Before inviting any applications, the Commission would first publish a spreadsheet "identifying, on a channel-by-channel basis, the specific states and counties where EBS spectrum is available for application." The spreadsheet would be provided by NEBSA and others.

With the release of the spreadsheet, the FCC would announce Stage One of the application process, a "one-day, first come, first served filing window" limited to

applications by Native American Tribal Entities proposing GSAs that fall within the geographic boundaries of their Tribal Lands. The GSA of each proposed station (and thus, the geographic area of the Tribal Lands in question) would have to be at least 1,924 square miles and "not occupy areas covered by licensed GSAs on the channel group proposed." The Commission would grant an EBS license for one channel group within each Tribal Land.

Once the Stage One applications have been processed and, where appropriate, granted, the Commission would announce Stage Two, a second "one-day, first come, first served filing window" during which any EBS eligible applicant (including Tribal Entities) would be permitted to file up to seven applications for any remaining available EBS spectrum. (The seven-application limit would apply to each applicant and all attributable parties to that applicant.) Applications would be filed on a county-by-county and channel-group-by-channel-group basis; applicants would be permitted to file for more than one channel group in any given county, but only one channel group per county would be licensed to any applicant during Stage Two. The spectrum up for grabs would include EBS spectrum remaining in any county that is partially covered by a Tribal Land EBS license on an overlay basis, protecting the boundaries of the Tribal Land EBS license.

*The proposed GSA expansions would occur automatically.*

Stage Three would kick in after Stage Two is wrapped up. The FCC would release a Public Notice that would (a) list the Stage Two licenses granted and (b) announce the date for commencement of a "first come, first served rolling filing window" for any remaining EBS spectrum by any EBS eligible entity. During the rolling filing window, there would be no limit on the number of applications a single entity could file. Applications would be filed county-by-county and channel-group-by-channel-group.

Under the Proposal, during each Stage the first-filed application acceptable for filing for a particular channel group in a particular county would be granted. Subsequent applications would be cut-off and dismissed. Precisely how this automatic cut-off process would work in the context of the one-day-only filing windows contemplated for Stages One and Two is not clear. In other services, two applications filed on the same day are deemed to have been filed simultaneously and, thus, both are entitled to comparative consideration. That system would seem not to work where the filing window is itself only one day long. Whether the Commission

*(Continued on page 14)*



(CPNI on Mobile Devices - Continued from page 2)

carrier is required to “protect the confidentiality of CPNI [so collected] and to prevent unauthorized use, disclosure, or access”. So if **any** of the collected data are CPNI, the CPNI **must** be protected.

How does the FCC determine that a carrier is “responsible for the collection” of CPNI? According to the ruling, if the confidential data are “(1) collected by or at the direction of the carrier, and (2) may be accessed or controlled by the carrier or its designee”, then the carrier is responsible for that collection. So if the carrier itself installs information-gathering software on its customers’ devices, or if the carrier has such software installed by somebody else (obvious example: the device manufacturer), and if the carrier can then access and/or control the data collected by that software, then the carrier must assure the confidentiality of any CPNI collected as a result. This obligation kicks in whether or not the CPNI data have ever in fact been transmitted to the carrier’s own servers.

The perhaps-worse-news: the Ruling does not provide much guidance as to how carriers are expected to assure the required confidentiality. The Commission cautions that carriers must “take[] reasonable precautions to prevent the unauthorized disclosure” of CPNI, and it alludes generally to protecting CPNI “whether by storing [it] in a location or form that it is protected or otherwise.” But the FCC’s not-entirely-illuminating take-home message is that decisions will “depend on the facts and circumstances in a particular case”.

One somewhat more detailed example the Commission does provide: a carrier is expected to “encrypt its CPNI databases if doing so would provide significant additional protection against the unauthorized access to CPNI at a cost that is reasonable given the technology a carrier already has implemented.” That example, however, may not be especially helpful in light of its relative non-specificity. (How much “additional protection”, after all, will afford “significant additional protection”? What cost is “reasonable” under what circumstances?)

*What’s a mobile carrier to do?*

What’s a mobile carrier to do? At the very least, it should have a comprehensive understanding of any and all software that it installs, or causes to be installed, on its customers’ devices. And it should have an equally comprehensive understanding of the nature of any and all data that such software can and does collect in any manner. If **ANY** of those data qualify as CPNI, then the carrier should take careful steps to assure that such data are protected from unauthorized disclosure, access or use by any third party. If the carrier can’t guarantee such protection, the carrier should seriously consider removal of the collection software. Historically, the Commission has doled out five- and six-figure penalties for CPNI-related misconduct. Following the Ruling’s unequivocal extension of CPNI protection to device-resident data, the FCC is likely to be even less charitable in dealing with violations.

Of course, as the FCC recognizes, consumer devices can collect data in a wide variety of ways. Apps can be installed by the consumer or by third-parties unrelated to the carrier. Any information, CPNI or not, collected by such apps is **not** the carrier’s problem. But if any software for which the carrier **is** responsible collects CPNI, the carrier **must** protect any CPNI collected by such software.

The Ruling places mobile carriers in a difficult political position. When the FCC first sought comment on the issue of device-resident data collections, many carriers resisted what they viewed as the imposition of additional CPNI-related obligations. Since then, however, we have seen the revelations regarding the data that the large carriers have been turning over to the government through the various NSA surveillance programs. In the light of those revelations, now might not be the best time for carriers to be seen to be opposing protection of confidential customer information; efforts to seek reconsideration or judicial review of the Ruling are thus probably unlikely. Discretion being the better part of valor, mobile carriers may be better served by accepting and complying with the Ruling.



(EBS Proposal - Continued from page 13)

could (as a practical matter) and/or would be willing to (as a policy matter) adopt an absolute first-one-in-the-door-wins approach – in which an applicant filed at, say, 12:01 a.m. would prevail over one filed at 12:06 a.m. – remains to be seen.

#### **Wrap-up**

If the Proposal were adopted, holes in EBS service area coverage would be eliminated and greater efficiency would be introduced into the use of EBS – both obviously desirable

goals.

The Proposal was filed in an *ex parte* filing in WT Docket No. 03-66. It is expected that the FCC will ask for comments on the proposal. If, after considering the Proposal and any comments that get filed, the FCC staff likes the whole or parts of the Proposal, the next step would be a notice of proposed rulemaking in which rules are proposed and issues are presented for comment. These processes are not rapid. Even in a best-case scenario we wouldn’t expect the Proposal to be adopted in whole or part as FCC rules for a least a couple of years.

**F**ormat changes are on the way.

*FHH Telecom Law* in its current form took shape more than a decade ago, printed in hard-copy and snail-mailed out to our subscribers. Several years ago we moved our mode of distribution online, but old habits die hard: the essential format has remained rooted in 20th Century technology: we have continued to prepare the *FTL* as a print document which we then save and distribute as a .PDF file.

A number of readers in recent months (and years) have asked us to adopt a format more appropriate for online consumption. Why, readers have asked, can't you just publish in a format that permits easier reading on mobile devices?

We agree – and are currently trying to identify the best format for the next generation of the *FTL*. We want to know what you think.

As noted, we have already heard from several readers who have expressed a clear preference for a purely electronic

version that allows uninterrupted scrolling of each article from beginning to end. Can any of those readers suggest specific software we might examine or other newsletters whose electronic formats we might try to replicate?

We also want to be sure not to disserve readers with different preferences. Are there any readers who find the PDF approach preferable – perhaps because they print it out for their own internal distribution or archiving?

## A Note to Our Readers

Any changes we make are still probably several months away (thanks to the limited size of the *FTL*'s production staff and the fact that, occasionally, he still has to practice some law), so ideally we'll have time to factor as many reader responses as possible into the final resolution.

Please let us know what you think. Send your comments and suggestions to [cole@fhhlaw.com](mailto:cole@fhhlaw.com); it would be helpful if you refer to "FTL format change" in the subject line, to make it easier to keep track of them.

Thanks for your help.



*(FCC Revolving Door - Continued from page 3)*

their seat at the FCC, earn a living wage, and tread water until the holding period expires.

They are then free to move guiltlessly into the highly remunerative industry jobs that their former status so clearly qualifies them for. Thus, former Chairman Powell turned up as the CEO of the Cable Television Association after toiling at Broadband for America, and former Chairman Kevin Martin became a partner at Patton Boggs after a stint at the Aspen Institute. Recently departed Commissioners Genachowski and McDowell have moved on to – surprise – the Aspen Institute and the Hudson Institute (coincidentally the home of former Commissioner Furchtgott-Roth), respectively. We presume that after a decent interval they will somehow find themselves offered high six or low seven figure positions with companies or associations they used to regulate. And all with a clear conscience.

Of course, the door revolves all the way. Tom Wheeler, a former leader of both the CTIA and Cable Television Associations, was nominated in the spring to be the Chairman of the FCC. Had he spent time at the NAB, he would have hit the perfect trifecta of media and communications leadership positions. One might suppose that it would be difficult for him to be tough on the very constituencies who paid him handsomely and whose causes he once fiercely espoused before the FCC. Wheeler brushed off any nonsense along those lines.

"If I am confirmed," he declared, "my client will be the American public." Why do we nevertheless have the feeling that someday in the not too distant future he will be hanging his hat at the NAB or maybe back at CTIA after a quick stop at Aspen? All indications are that his nomination is on track to proceed through the Senate with little opposition, though it may get bogged down if it becomes tied to the nomination of the Republican-to-be-named-later who would fill the fifth seat on the Commission.

Finally, we would be remiss if we did not tip our hats to Commissioner Clyburn, who was elevated to the position of Acting Chairwoman of the Commission pending Wheeler's confirmation. The Acting Chairmanship is sometimes treated as an honorific while the holder treads water until the real chairperson arrives. There just is not time to set much of an agenda in the two or so months that an acting chair has to work with. Nevertheless, it is certainly a distinction for Commissioner Clyburn to become the first female honcho of the FCC. With no current timetable for Wheeler's confirmation, she has pushed out the FCC's approval of the high-stakes Softbank-Sprint merger and seems determined not to sit idly waiting for the Senate to act. She, by the way, came to the FCC from a similar public service gig at the South Carolina PSC. So, while politically connected, she has spent her recent career in the public sector and earlier in the local newspaper business. How strange.



*(FM/LTE Interference - Continued from page 1)*

MHz? Every radio transmitter emits not only its primary signal but also multiples – two times, three times, four times the frequency and on up. Do the math: stations operating anywhere from 88.1 MHz to 100.5 MHz will generate 8th harmonics somewhere in the 700 MHz wireless band.

Wireless carriers have recently complained to a number of FM stations, demanding that the FM stations suppress their harmonic in the 700 MHz band. In at least one instance, that has led to the FCC's issuance of [an official Notice of Violation \(NOV\)](#) directed to the FM station. According to the NOV, the FM licensee is somehow violating the rules and is supposed to be taking corrective actions. The problem is that it's not at all clear that the FM licensee has done anything wrong.

According to the NOV, the FM station has been violating [Section 73.317\(a\)](#). Allow us to quote that section in its entirety, so we're all on the same page here:

(a) FM broadcast stations employing transmitters authorized after January 1, 1960, must maintain the bandwidth occupied by their emissions in accordance with the specification detailed below. FM broadcast stations employing transmitters installed or type accepted before January 1, 1960, must achieve the highest degree of compliance with these specifications practicable with their existing equipment. In either case, should harmful interference to other authorized stations occur, the licensee shall correct the problem promptly or cease operation.

You'll note right off the bat that this section does not itself impose any particular operating limitation on FM stations; rather, it requires that they maintain their occupied bandwidth "in accordance with the specification detailed below". From what we hear from our friends in the consulting engineering universe, FM transmitters these days easily meet the various "specification[s] detailed below" in the rest of Section 73.317.

[Section 73.317\(d\)](#) tells FM licensees how strong harmonic emissions can be, and there's no indication in the NOV that the targeted station was violating that particular standard. Stations powered at 5 kW or more are required to suppress harmonics by 80 dB. In other words, if the 8th harmonic of a 50 kW station is 80 dB below the carrier on the main frequency – around five

ten-thousandths of a one watt, or 0.0005 watt – the rule is satisfied.

One of our long-time friends, [Gary Cavell](#) (of the eponymous [Cavell Mertz & Associates](#) – a swell bunch of folks and excellent engineers, to boot) suggests that the interference observed by the wireless operators may arise from the extreme sensitivity of the LTE high gain antennas (juiced up by high gain amplifiers) they're using. Such gear provides reliable service from handsets operating at a distance from the LTE towers, so it's attractive to wireless providers because it reduces the number of cells required to cover an area (yup, it reduces costs). But that sensitivity can result in the LTE systems being disturbed by FM emissions well below the floor that FM stations are required by the rules to maintain. We have heard of at least one wireless carrier demanding that the FM station suppress harmonic radiation to -105 dB, or less than 2 one-millionths of a watt (0.000002 watt) for a 50 kW station.

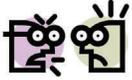
*Installation of a full-fledged Faraday Cage "is not a cheap date."*

If there is an interference problem here – and there may well be – is it the fault of FM broadcasters who may not be in any violation of the FCC's Rules; or is it from the hyper-sensitivity of the wireless equipment in an existing RF environment that the FCC has blessed for decades?

As it turns out, the FM emissions that appear to be causing the problem here may not be coming out of the FM antenna at all. Rather, according to Professor Cavell (whose team has been looking into the issue), the emissions may be leaking from the FM transmitter cabinets, even when those transmitters are fully compliant with all technical specs. Keep in mind that FM transmitter manufacturers have designed their equipment to comply with the FCC's rule, not the demands of wireless carriers.

Why not just put up a shield to block the undesired emissions? Gary reports that shielding a (supposedly) interfering transmitter's air intake and exhaust areas with screening seems to help some, but installation of a full-fledged [Faraday Cage](#) seems to do better. Bad news: as Professor Cavell put it so that we could wrap our non-engineering minds around it, going that route "is not a cheap date". And whatever fix may eventually be used, it'll cost time and effort on the part of the station's engineer to figure out how best to mitigate the problem.

*(Continued on page 17)*



*(FM/LTE Interference - Continued from page 16)*

So the real question is who should be responsible for fixing whatever problem exists? For the last several decades, at least, the Commission has imposed a “last-in” policy to handle interference problems that arise when one spectrum user’s newly-commenced operation causes or receives interference from other nearby spectrum users. If all the various players are using gear that complies with all applicable rules, the “last-in” policy calls for the new kid on the block to fix things. In the FM/700 MHz LTE situation, that would be the 700 MHz folks. (Of course, to avoid the problem in the first place, 700 MHz operators might want to opt for antenna sites that don’t happen to be close to any FM station whose 8th harmonic falls in the 700 MHz’s mobile-to-base band – if, that is, such sites happen to be available.)

But if the “last-in” policy applies here, the NOV doesn’t make much sense. It seems, in knee-jerk fashion, to pin the blame on the FM broadcaster. Exactly how the Enforcement Bureau’s Northeast Office reached that decision is not clear. If the Bureau really thinks that the FM station’s equipment doesn’t satisfy the rules, it should say why it thinks that.

But simply citing Section 73.317(a) without reference to any of the other, substantive, portions of that rule doesn’t seem to do the trick unless the Bureau has, without telling anybody, decided that the “last-in” policy is no longer in effect – or that the policy doesn’t apply when the “last-in” party happens to be a wireless operator and the other party is a mere FM broadcaster. That would be unfortunate – and possibly unjustifiable, if it ever got to court without further due process, say, an intervening

*If the “last-in” policy applies here, the NOV doesn’t make much sense.*

rulemaking to afford everyone adequate time to implement any new standards. Keep in mind, though, that the NOV came from an FCC Field Office; we don’t know whether they consulted with the FCC folks at home base in Washington. We also have not yet heard from the Media Bureau, which ideally isn’t likely to be in a hurry to put the squeeze on stations whose equipment is operating as designed and in compliance with the rules.

We hear that, in other situations, the FCC has not yet been called in. Instead, some 700 MHz operators have sent their own nasty-grams to the FM stations calling on the FMers to correct the interference as if it’s a given that the FM licensee is responsible. The good news there is that, in at least one such case that we’re aware of, the 700 MHz folks have seemed to be open to reason when the rules (and the longstanding “last-in” policy) are explained to them. Of course, in such instances it’s useful – and probably the Right Thing to Do – for the FM operator to be cooperative in efforts to

identify the precise source(s) of the interference and devise ways of fixing things. But that cooperation does not necessarily require the FM licensee to bear any financial expense in that process, particularly if the FM licensee’s equipment complies with all applicable rules.

With the increasing deployment of 700 MHz operations nation-wide, it’s likely, if not certain, that this type of set-to will recur repeatedly. FM licensees would be well-advised to consult knowledgeable engineering and legal counsel if a complainant (or the FCC) comes knocking on their door.



*(New Kids on the H Block - Continued from page 3)*

requirements (by offering service to at least 40% of the population within four years) will have the initial ten year term (and the final buildout requirement) accelerated by two years.

- ☛ The Spectrum Act prohibits “a person who has been, for reasons of national security, barred by any agency of the Federal Government from bidding on a contract, participating in an auction, or receiving a grant” from participating in competitive bidding. Accordingly, the Commission will require potential H Block auction bidders to submit an

additional “national security certification” in order to participate in the competitive bidding process. ([Edward Snowden](#) probably shouldn’t bother applying.)

The FCC has not indicated when the auction for this new spectrum is likely to occur, but indications are that it could be by the fourth quarter of this year or first quarter of 2014.

Full details of the Commission’s new H Block service rules are available in the [Report and Order](#).



*(Spectrum Sharing Proposal - Continued from page 4)*

to frequency coordination; and

- procedures to ensure that both federal and private earth stations comply with applicable FCC rules.

In a different world, the FCC could just wave its wand and adopt the appropriate rules. But the current regulatory scheme makes a simple solution impossible, because the NTIA request rips right through the federal-private partition. Efforts to accomplish the desired result, while still respecting the underlying statutes, have taxed the best legal minds at the FCC. The *NPRM* ties itself in knots, page after closely-analyzed page, struggling to work within a system that may have suddenly become obsolete. Much of the discussion, for example, concerns whether to add a new allocation to the table of allocations, or instead to add a footnote to an existing allocation – just the sort of hairsplitting that gives lawyers a bad name. But the rigidities built into the existing structure leave the FCC no choice.

*Spectrum shortages will require more sharing of frequencies.*

The job would be simpler if Congress were to step in and adjust the FCC's and NTIA's respective jurisdictional limits. That, however, presupposes a functioning Congress, one willing to put aside partisan bickering long enough to work through the details of technically complex legislation. We doubt that will happen soon.

In a second portion of the *NPRM*, the FCC proposes to modify an allocation footnote to allow federal satellites in the tiny 399.9-400.05 MHz band. (Tiny indeed; a single FM broadcast station takes up more spectrum.) Although allocated for shared federal and private use, the band has no private users. The footnote in question now limits federal use to earth stations operating with private satel-

lites. The government wants to use the band for a new federal satellite system to supplement [Argos](#), used for ocean monitoring, tracking wildlife, relaying information by humanitarian agencies from remote areas, monitoring water resources, and tracking ships, among other things. The footnote would have to be changed accordingly.

A third issue arises from the privatization of space operations. Not long ago, the federal government conducted all launch operations, even of private satellites, and did it using federal spectrum. Now commercial launch operators like SpaceX and Orbital Sciences want to use the same frequencies. In fact they have been using those frequencies, under special temporary authorities. The FCC proposes to add private allocations to three hitherto federal bands: 420-430 MHz, used to send self-destruct signals to spacecraft when something goes badly wrong; 2200-2290 MHz, for launch telemetry; and 5650-5925 MHz, for radar to track the progress of a launch.

Finally, the FCC has appended a Notice of Inquiry that invites interested parties to comment on future spectrum requirements of the commercial launch industry and possible commercial space stations.

Private and federal spectrum users all know that spectrum shortages will require more sharing of frequencies. This *NPRM* is an early sign that sharing will also have to extend between the federal and private domains – if the FCC and NTIA lawyers can work out the details without violating outdated laws.

Comments are due no later than August 30, 2013, with replies due by September 30.



*(Airborne Wi-Fi - Continued from page 8)*

tions, such claims will need to be verified.)

It's also not known how consistent the connections would be. Besides the problem of hand-offs from one ground station to another, the available bandwidth will be shared by the dozens (or more) of connected devices on any given plane, with many planes sharing the overall bandwidth. It's unlikely that anyone will do much HD video conferencing from 35,000 feet. But updating your Facebook status or reading *CommLawBlog* while airborne should become easier and cheaper than it is today, and who could complain about that?

Still, this news may darken the hearts of some travelers.

Time in the clouds has become one of the last opportunities to be truly un-plugged. More than a few travelers may grumble about being expected to read and answer emails while flying. Not to mention the more unsavory uses for the Internet, which may require content filtering or vigilant monitoring by the flight crew. Or even more ominously, the threat of having a VoIP-connected telephone user in the next seat. While these are not new problems, the decline in cost and increase in availability of Internet access while flying could prove to be both a blessing and a curse.

Deadlines for comments and reply comments have not yet been set. Check FHH's *CommLawBlog* for updates.



*(TV Max Fine - Continued from page 9)*

There was one **big** problem with that claim. It apparently wasn't true.

According to the Commission, by the time TV Max's previous retrans consent agreements had expired, only **some** of its buildings actually had MATV equipment installed. And even after it had supposedly completed installation of such gear on all its buildings (by late July, 2012), TV Max was *still* not providing the OTA stations' programming to all buildings through those MATV systems. (It was apparently using a metropolitan-wide optical fiber system, or "fiber ring", rather than in-building, coaxial-based MATV systems.) By December, 2012, the Media Bureau had investigated the matter – even convening a "lengthy conference call" with all the parties – and had concluded that TV Max was violating the retrans consent rules. It so notified TV Max.

Nevertheless, TV Max apparently continued its carriage of the stations' programming. But, in answer to follow-up inquiries from the Bureau in April, 2013, it told the Bureau that since June, 2012, the stations' signals "ha[d] not been carried on any fiber ring owned or controlled by TV Max." This claim was apparently based on the fact that sometime in mid-2012, TV Max had sold "certain" of its assets – including head-end and "cable TV subscriber assets" – to a couple of other companies. TV Max seemed to be saying that any carriage after mid-2012 had not been its fault.

What TV Max didn't mention to the Commission was the fact that, according to readily available public records, the companies that acquired those assets are apparently controlled by some or all of the same folks who control TV Max, a fact which plainly undermined the credibility of TV Max's seeming profession of innocence.

The Commission unsurprisingly concluded that "it appears that TV Max simply assigned the cable operation and fiber optic network to two related companies in an effort to evade responsibility for its ongoing violations." In the Commission's view, TV Max's April, 2013 response was "lacking in candor."

And, of course, TV Max's historic and on-going unauthorized carriage of the OTA signals violated the rules.

In calculating the forfeiture to be meted out, the Commission noted that TV Max was guilty of "egregious misconduct" featuring repeated, intentional violations that resulted in "substantial economic gain". So while the [standard rate-card fine](#) for retrans violations is \$7,500 per violation (up to \$37,500 per day), the FCC felt it needed to send a message to TV Max (and anybody else who might be inclined to follow TV Max's game plan). Using some unstated math, the Commission came up with a total fine of \$2,250,000. According to the Commission, it could have come down even heavier on TV Max, but concluded that, because of TV Max's relatively small size, that wouldn't be necessary. Es-

entially, the final amount was designed to deter future similar violations and ensure that the forfeiture is not considered an affordable cost of doing business. (The Commission did, however, observe that even higher upward adjustments might be "quite appropriate in other cases.")

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Over and above its sheer size, there is at least one additional interesting aspect of the proposed fine. While the Order doesn't dwell on this, it makes strikingly clear that the forfeiture is being imposed not only on TV Max, but also – jointly and severally – on TV Max's individual principals and related entities. As we have previously observed in these pages, the imposition of monetary penalties on the individual principals of corporate wrong-doers seems inconsistent with the usual concept of "corporation." If nothing else, the TV Max case reflects the FCC's willingness to ignore the corporate veil.

TV Max still has the opportunity both to argue to the FCC that the forfeiture should be reduced and to fight the entire case anew in court. It's hard to imagine, though, that this matter is likely to end well for TV Max. No MVPD likes to pay retransmission consent fees. But the TV Max case provides a cautionary tale of how an MVPD should **not** deal with that concern.