

## Comments and Observations on Weiser's "FCC Reform and the Future of Telecommunications Policy"

Michael J. Marcus\*

### Overview

As a first step let me say that I agree with most of what is said in this paper. FCC is in desperate need of reform. It is interesting that this paper comes out around the same time as Lessig's *Newsweek* article<sup>1</sup> on FCC reform which takes a rather different approach. A key point where I agree more with Lessig than with Weiser is that the issue of FCC reform is vitally important to the whole economy. FCC has a broad "product line" of regulatory activities, many of which are key to economic growth in sectors *beyond* its classical "constituency" of telecom equipment manufacturers and service providers, licensees, and regulatees. A basic recurring problem is that FCC, like other national industry regulators, tend to get "captured" by its constituents and focus on their near term gratification. In this time of economic crisis, we should recognize that the telecom policy environment created by FCC is vital to the whole economy.

The ability of new telecom services and products to reach the market in a timely, responsible way impacts the classic FCC constituency, of course, but it also impacts other firms that are users of telecom products and services (by improving the efficiency of their operations) and creates new business opportunities that are enabled by new communications services. FCC rarely realizes that the regulatory messages it sends affect the capital markets that are key for funding new communications technology, for technology does not just arrive at the FCC's doorstep for consideration out of some 21<sup>st</sup> century "spontaneous generation". Technology that is mature enough for some sort of regulatory consideration requires *both* R&D and financial support. While all R&D is risky for the investor, transparency problems at FCC have made investment in innovative technology subject to its regulation particularly risky. Given the current credit crunch, FCC's murky practices could divert available capital to other ventures not subject to the transparency issues at FCC and thus inhibit innovation and job formation in a wide variety of industries.

### My Background/Viewpoint

I approach this paper based on my experience in telecom policy, which is a little out of the mainstream. I am not a lawyer or economist. I am an overeducated "card carrying" IEEE member. While I worked at FCC for almost 25 years, I have also had the opportunity of working at the FCC's Japanese counterpart, now called Ministry of Internal Affairs and Communications, on an exchange program, and working for Mrs. Viviane Reding, European Commissioner for Information Society & Media, as a Special Advisor. While living and consulting in France for 3 years, I also observed how national and EC regulators dealt with parallel policy issues.

In the EC, regulators realize that they are dealing with the whole European economy, not just one industry segment. Telecom is a basic infrastructure in present day economies and in many

---

\* Associate Chief for Technology (Retired), FCC Office of Engineering and Technology, Marcus Spectrum Solutions LLC, Cabin John MD, [www.marcus-spectrum.com](http://www.marcus-spectrum.com)

<sup>1</sup> <http://www.newsweek.com/id/176809>

ways has been the engine of recent economic growth by enabling new services that both improve the efficiency of nontelecom sectors as well as enabling new products and services that result from new services, *e.g.* Amazon, Travelocity, etc.

### **Historical Issues**

Weiser writes, "The FCC has long used suboptimal procedures and processes. These failings are not, however, due merely to shortcomings in leadership." I agree with the first part of this, but disagree with the second. There has been a long evolution of policies and processes at FCC since 1935 and his recalling of past sins is true in almost all cases. But as the Bard of Avon wrote, "The fault, dear Brutus, is not in our stars, But in ourselves." The recent problems and many of the past problems come from poor leadership. Poor legislative guidance and poor oversight from Congress have been contributing factors. The best hope for near term improvement is better leadership coupled with effective oversight. In the midterm, improved legislation is needed to align the Commission's goals and processes with national priorities. The wholesale change suggested by Lessig will be too distracting to address the problems at hand and is not really necessary with effective leadership.

I strongly urge readers to review an early product of the University of Colorado, home of the Silicon Flatirons program: Chapter 2 of *Telecommunications: An Interdisciplinary Text* (1984). This essay by Gail Crofts Arnall and Lawrence Mead is entitled "Decision Making at the FCC" and has held up well in the past quarter century. It even has a section on "The Reform of the FCC"!

### **Importance of Appointments and Staffing**

It is crucial that the next FCC Chairman be someone with both good insight into communication policy and its impact on the national economy, and interest and skills in managing an organization. FCC is an agency with over 2000 employees, a few hundred of whom are outside Washington DC. As the House Energy and Commerce Committee reported recently, "there appear to be a very serious morale problem at FCC caused by Chairman Martin's poor management" and "there is a climate of fear at FCC".<sup>2</sup> A key near term issue is to motivate this staff and turn around the morale problem.

The new chairman must be committed to transparency in policy making and enforcement to clean the FCC of poor habits that have recurred in recent years.

While the technical community moans that there has not been anyone with a technical background appointed to the Commission in decades, I think it is more important that no Commissioner has had *any* experience in a high tech, Silicon Valley-like operation in *any* capacity. I recall one commissioner (no longer at FCC) meeting with the senior OET staff and expressing disappointment that on his first day at the Commission he was not handed a book that explained how telecom technology worked. One wonders how he got through the confirmation process with such a background, but that is the reality of the current system. I mentioned this comment to a friend who was a commissioner at the Nuclear Regulatory Commission who was dumfounded by the FCC commissioner's comment!

---

<sup>2</sup><http://energycommerce.house.gov/images/stories/Documents/PDF/Newsroom/fcc%20majority%20staff%20report%20081209.pdf>

I think there is enough blame on this issue to go around. But one factor has to be the high tech industry that routinely hosts fund raising parties for presidential aspirants and then never suggests names of people from their entrepreneurial culture for consideration as commissioners. The recent bias for regulatory commission appointees to be former Senate staffers was started in the Clinton Administration for political convenience and has continued in the current Administration. Considering the broad jurisdiction of FCC, this strong bias in selections is a bad idea and the White House should consider appointing commissioners with a broader variety of backgrounds.

The Chairman has 4 professional assistants to appoint and the other commissioners have 3.<sup>3</sup> In recent years, each commissioner has generally filled these positions with a wireless assistant, a media assistant, and a telecomm assistant. This neatly reflects the organization of the Commission, but results in a group of key advisors who generally arrive without the qualifications for their jobs. I urge the next Chairman to appoint one assistant who has specific experience in high tech industry to change the level of discussion on the 8<sup>th</sup> floor on innovative technology. It does not have to be a “techie” who can design equipment, but it needs to be someone who can ask the staff the right questions and understand how decisions affect the innovation process. The Chairman should then urge the other commissioners to evolve their staff in a similar way.

### **Strategy**

Weiser gives several alternative interpretations of what FCC is an abbreviation for, but one of my favorites is “From Crisis to Crisis” because FCC has generally had not broad strategies for its various “product lines”. Under Chairman Powell, the Spectrum Policy Task Force developed a strategy for spectrum management. The Commission failed to embrace it fully and then under Chairman Martin it disappeared into the night with no alternative. True, FCC does have the “Strategic Plan”<sup>4</sup>, but this is a formality required by law, and a review of past documents shows they just put out basically the same material every year hoping that no one notices – they apparently don’t.

The lack of a clear strategy translates into both a transparency problem and a disincentive for capital formation for innovative technologies. Investors don’t expect certainty before they invest in new technology, but they want to be able to estimate the risk and compare it with alternative investments, including those in other industries. The lack of a known FCC strategy in many areas is a clear disincentive for capital formation for innovative technologies.

But with the downturn in the economy/recession, there is a new danger to the lack of known strategy. As credit dries up, traditional regulatees, who have discouraged the adoption of strategies since they generally prevail in *ad hoc* policy making in a nontransparent environment, may find themselves subject to more aggressive “due diligence” from investors and credit sources. The due diligence inquirers may wonder what the ongoing businesses are actually worth and how risky they are in a murky regulatory environment. For example, while the UK and Australia seek to quantify the interference rights of cellular licensees through better definitions of “harmful interference”/“spectrum usage rights”, US cellular licensees have made it

---

<sup>3</sup> 47 U.S.C. 154(f)(2)

<sup>4</sup> <http://www.fcc.gov/omd/strategicplan/>

clear in the AWS-3 proceeding<sup>5</sup> that they expect an unrealistic and unachievable complete protection from interference, and since the Spectrum Policy Task Force days have resisted *any* clarification to the vague §2.1 definition of harmful interference.

But any discussion about strategy would not be complete without mentioning that FCC's parallel spectrum regulator – NTIA. A major fraction of US spectrum is used fully or partly by the federal government and hence subject to §305 of the Communications Act. This is beyond FCC's jurisdiction. Many FCC actions require “coordination “ with NTIA because they impact spectrum used by federal agencies. While NTIA *appears* to have a spectrum strategy in the President's Spectrum Management Initiative<sup>6</sup>, in reality it is window dressing because the real power in federal spectrum management still rests with the secretive Interdepartmental Radio Advisory Committee<sup>7</sup> which is controlled by the large agencies who are spectrum users. The impact of a real strategy for spectrum at FCC will be limited unless NTIA makes real parallel efforts.

### Transparency

I agree fully with Weiser's dim view of transparency at today's FCC. I am aware of no other federal agency that relies solely on external parties to document what happens during oral *ex parte* discussions. (Other agencies appear to depend on their own staff to write up what happens at these meetings. Agency staffs have different incentive for candor than outside parties.) Thus the integrity of the process depends on what the external parties report in the docket file and in many cases they have little or no incentive to document what was actually said. Indeed, they may feel that documenting what was said would give others the opportunity to rebut them – exactly the intent of the *ex parte* rules.

Let me add two specific concerns that Weiser does not mention. First, there is absolutely no enforcement of the *ex parte* rules that are codified today. The closest thing I can find to an attempt to enforce the *ex parte* rules is a 2002 letter from Chief, Cable Services Bureau to two outside parties threatening to report them to OGC if they violated the rules again.<sup>8</sup> OGC is delegated authority under §0.251(g) to “issue ruling on whether violations of *ex parte* rules have

---

<sup>5</sup> Docket 07-195

<sup>6</sup> <http://www.ntia.doc.gov/osmhome/spectrumreform/index.html>

<sup>7</sup> <http://www.ntia.doc.gov/osmhome/irac.html>

<sup>8</sup> Letter from W. Kenneth Ferree, Chief, Cable Services Bureau to Pantelis Michalopoulos and Gary M. Epstein, Re: Consolidated Application of EchoStar Communications Corporation, General Motors Corporation and Hughes Electronics Corporation for Authority to Transfer Control, CS Docket No. 01-348, March 7, 2002 (<http://www.fcc.gov/transaction/echostar-directv/fcextensionletter030702.pdf>) This letter deals with both *ex parte* and another unrelated issue. The *ex parte* sections states,

“We further note that your *ex parte* notice regarding the February 21, 2002, meeting was filed with the Commission on March 5, 2002. Your delay in filing this notice is contrary to Commission's rules. You are reminded that, pursuant to Section 1.1206(b)(2), you are required to file written notice of an oral presentation to Commission staff no later than the next business day following the presentation. Under Section 1.1216, violations of the *ex parte* rules may result in sanctions, including forfeitures. We admonish the Applicants to comply with the *ex parte* requirements on a going-forward basis, and caution that future violations will be referred to the Office of General Counsel for further action pursuant to Section 1.1214.” (References deleted)

occurred”, but appears to have taken absolutely no actions in years. My own attempts to report multiple apparent violations of the rules by one party whose actions are far from industry norms have been met by excuses comparable to those used to avoid indecency complaint adjudication a decade ago. I have been told by OGC that 1) complaints may only be filed by a party in a proceeding, 2) there is a timeliness requirement for complaints, 3) adequacy of a filing is judged by comparing it with other filings in the same proceeding, and 4) the complaining party must prove significant harm. Perhaps these are reasonable, perhaps not. In any case they are neither documented in the Commission’s Rules nor in explanatory information on the Commission’s website.<sup>9</sup>

Second, there is a continuing problem with abuse of the exemption to *ex parte* filings given in §1.1204(a)(10) for presentations “requested by (or made with the advance approval of) the Commission or staff for the clarification or adduction of evidence, or for resolution of issues” especially ones made during the sunshine period. There is anecdotal evidence that senior FCC staff call some of the affected parties in the days prior to Commission meetings on major issues to explore compromises under consideration. This may indeed be a reasonable approach to decision making if it is done in a transparent way. However, the current procedure used is not transparent and it is not clear if all affected parties are treated comparably.

FCC needs to make reasonable steps to enforce its *ex parte* rules and clarify procedures for information requests that originate internal to the agency. *Ex parte* complaints should be adjudicated in a timely transparent way that does not depend on vague procedural “shell games”. Penalties for *ex parte* violations should start with admonishments and warnings and should escalate in the rare case of repeated or flagrant violations.

### **IEEE-USA Letter**

In June 2008, IEEE-USA, the US policy arm of the major electrical engineering professional society, sent a letter<sup>10</sup> to Chairman Martin suggesting several actions “to augment the FCC’s in-house technical expertise:

- Reinvigorate the dormant Technological Advisory Council (TAC);
- Seek advice from The National Academies on key long-term policy issues;
- Budget for and contract for supplemental support on novel technical policy issues where staff and capabilities are not available;
- Institute regular dialog with industry and academia to identify out-of-date rules.”

It never received a reply. I was a major contributor to the drafting of this letter and am disappointed that it never received a response. I hope the new FCC leadership will consider these issues *de novo*.

Most other regulatory agencies with technical jurisdiction have technical advisory committees that play a key roles in regulatory development. In general these committees are specifically established by law.<sup>11</sup> A classic book published by Brookings Institution documents how these

---

<sup>9</sup> <http://www.fcc.gov/ogc/xprte.html>

<sup>10</sup> <http://www.ieeeusa.org/policy/policy/2008/060508.pdf>

<sup>11</sup> *e.g.* Section 29 of the Atomic Energy Act of 1954, as amended, provides:

other agencies have integrated these committees into their deliberations.<sup>12</sup> The FCC's Technological Advisory Committee (TAC) has disappeared into limbo. While it is listed on the FCC's home page among other advisory committees, it has not met in over 2 years. Even when it met, it was kept away from any meaningful input into ongoing deliberations. The new Commission should review how other agencies' use advisory committees and integrate the TAC into FCC deliberations. One useful task, in view of the recent testing confusion in TV white space (Docket 04-186) and AWS-3 (Docket 07-195), might be to have the TAC review test plans before the tests are performed to check for possible bias and whether the testing is likely to lead to results that have decisional significance.

Two classic technical policy decisions of the 1970s, terrestrial/satellite C band sharing and Part 68 interconnection were based upon recommendations made by National Academy of Sciences/National Research Council (NAS/NRC). Other regulatory agencies (as well as nonregulatory agencies) routinely refer key strategic policy questions to NAS/NRC for advice, sometimes at the mandate of Congress.<sup>13</sup> But FCC has never commissioned a study in over 30 years.

Other regulatory agencies contract for outside technical support, particularly in rapidly evolving areas where they may not have sufficient staff with the right expertise. Several of the various federally funded research and development centers (FFRDCs), e.g. MITRE and MIT Lincoln Laboratories, have outstanding technical capabilities in the technologies regulated by the FCC and have few, if any conflicts, since their dominant clients are other federal agencies. A common reason to the nonuse of both NAC/NRC and FFRDCs is the lack of budgeting for such outside expertise at FCC. I urge the new Commission to examine its policy study needs and the best mix of resources to fulfill them. NAS/NRC and FFRDCs should be given consideration in his requirements study.

Finally, IEEE-USA recommended that FCC increase its technical dialog with industry and academia. Too often FCC focuses exclusively on petitions in its "inbox". Technical rules, no matter how well intentioned when they are written, become anachronistic as new technologies and markets evolve. Waiting for petitions in many cases means waiting too long since it raises the threshold for R&D and capital formation. Today's ubiquitous Wi-Fi as well as CDMA cellular technology used in many 2G systems and most 3G cellular systems worldwide all benefited from

---

"There is hereby established an Advisory Committee on Reactor Safeguards consisting of a maximum of fifteen members appointed by the (Nuclear Regulatory) Commission for terms of four years each. The Committee shall review safety studies and facility license applications referred to it and shall make reports thereon, shall advise the Commission with regard to the hazards of proposed or existing reactor facilities and the adequacy of proposed reactor safety standards, and shall perform such other duties as the Commission may request. One member shall be designated by the Committee as its Chairman. The members of the Committee shall receive a per diem compensation for each day spent in meetings or conferences, or other work of the Committee, and all members shall receive their necessary traveling or other expenses while engaged in the work of the Committee."

<sup>12</sup> Bruce L.R. Smith, *The Advisers - Scientists in the Policy Process*, Brookings Institution Press 1992 (<http://www.brookings.edu/press/Books/1992/advisers.aspx>)

<sup>13</sup> Current studies are listed at <http://www8.nationalacademies.org/cp/ReportView.aspx?key=Board>

the Commission's *sua sponte* efforts on spread spectrum in the early 1980's.<sup>14</sup> Other US regulatory agencies and FCC's foreign counterparts have outreach programs where they encourage a 2-way dialog between industry and academia and the agency staff to explore new developments and their policy implications. Reasonable people could disagree on what fraction of the Commission's regulatory resources should be diverted from its "inbox" to look at new developments and their regulatory implications, but it is unlikely that zero is the right answer.

In the Appendix herein, I give more specific suggestions for the new Commission to consider in improving its regulation, increasing transparency, and helping to stimulate economic growth.

---

<sup>14</sup> See <http://www.marcus-spectrum.com/SSHHistory.htm> for a history. An early FFRDC report by MITRE Corp. was part of this effort:  
[http://www.mitre.org/work/tech\\_papers/tech\\_papers\\_07/MTR80W335/MTR80W335.pdf](http://www.mitre.org/work/tech_papers/tech_papers_07/MTR80W335/MTR80W335.pdf)

## Appendix

### Suggestions for FCC Action to Improve the Agency and Its Regulations

#### 1. Personnel

An agency is only as good as its personnel. The FCC's recent record on interest in its career civil service staff is puzzling. Is the staff a "necessary inconvenience" for political appointees or a key resource?

- a. **Recruiting** – Recent recruiting has been haphazard. It is inconvenient that the fiscal year begins at the start of the academic year and that in most recent years FCC has been on continuing resolution for several months at the beginning of the fiscal years. But other agencies have learned to cope with this in their recruiting. New staffers do not have to be hired until the Spring, but to have any hope of getting the best graduating students one must start in the Fall even if budgets aren't finalized. While FCC generally recruits lawyers early in the school year, it lags in other fields. Some entry level professional recruiting must proceed in parallel with budget deliberations.
- b. **Rotation** –All FCC employees, including entry level ones, are hired into a specific position in a specific bureau/office and are expected to stay there until they quit, find a job somewhere else in FCC on their own initiative, retire, or die. Thus in this age of convergence, most FCC policy-related employees have never worked in more than one part of the FCC organization. Thus they have little understanding of other industry segments than the one they have worked with. They are also more subject to "capture". Top managers have no incentive for even brief personnel rotations because they are focused on meeting near-term deadlines. My experience in the FCC's Japanese counterpart, where rotations are a key part of career development for policy personnel, is that midlevel and senior level staffers were much more well rounded than their FCC counterparts. I note that the Nuclear Regulatory Commission has two 90 day rotations in addition to other training for all new technical employees during their first 2 years.<sup>15</sup>
- c. **ITU** There are no FCC employees who have ever worked at ITU and the only ITU employees who have worked at FCC left FCC with great difficulty. Under law, federal employees may be detailed to international agencies like ITU for 3 or more years and keep most federal employment rights.<sup>16</sup> Other federal agencies publicize vacancies at their international counterparts, FCC has never publicized them and discourages consideration of such moves. FCC has more than 2000 employees. While reemployment rights for employees working overseas are somewhat limiting on agency staffing procedures, one or two employees having such rights should not overly confine personnel policies in a 2000 person agency and may be a small cost to pay for staff with more international experience.

---

<sup>15</sup> <http://www.nrc.gov/about-nrc/employment/safety-intern.html>

<sup>16</sup> <http://www.opm.gov/employ/internat/>

- d. **SES Policies** Senior civil servants at FCC are in the Senior Executive Service, created by the Carter Era Civil Service Reform Act. The law was a careful balance of employee rights and new flexibility for the employing agency. FCC has consistently exploited the new flexibility while ignoring other parts of the legislation intended to improve the pool of senior civil servants. In particular, even though FCC is entitled to designate one SES employee for Presidential Rank<sup>17</sup> each year with a large bonus and an award given by the President, FCC has done so only twice in the 30 years of this program. Similarly FCC SES employees are entitled to ask for SES sabbaticals of 6-12 months.<sup>18</sup> The law requires the agency to adopt rules for such sabbaticals but FCC has failed to do so in the more than 30 years since the passage of CSRA.
  
- e. **Training for Employees** FCC has no regular budget for employee training. While this is not unusual for federal agencies, it is a real problem due to the special circumstances of FCC finances: FCC spends a higher ratio of its budget on fixed costs such as salaries, rent, and utilities than almost any other agency since it has no operating programs like grants and contracts. (Obviously the DTV transition is a temporary exception.) Thus training readily gets cut or decimated whenever there is a budget hiccup. Chairman Powell brought in the well funded “FCC University” program of financing training from outside sources. It has now been gutted. FCC needs a long term training and advanced degree program to attract and retain high quality employees and to help them develop their skills as the regulated industries evolve. This should not be left totally at the mercy of budget cycles which results in a “bipolar” approach to spending.
  
- f. **Awards** Awards are a good way of motivating and rewarding employees. But awards at FCC, like many other things, lack transparency and thus may be counterproductive. SES bonus awards used to be very open during the Fowler chairmanship with public ceremonies featuring military honor guards even! But for more than a decade such awards have been a well kept secret, although sometimes *Broadcasting & Cable* has ferreted out the details. Excellence in Economics awards are publicly announced<sup>19</sup>, but the analogous engineering rewards are not announced.<sup>20</sup> The Gold and Silver Medals<sup>21</sup>, the highest staff awards are given on an irregular, unpredictable basis. Some years, staff is asked for nominations, other years not.
  
- g. **Open Door Policy** The House Energy and Commerce report documents how employees have been forbidden to speak to commissioners without the approval of the Chairman’s Office. This policy should be immediately revoked and a responsible system for staff members to express concerns over policy

---

<sup>17</sup> <http://www.opm.gov/ses/performance/presrankawards.asp>

<sup>18</sup> 5 U.S.C. 3396, [http://www.opm.gov/ses/executive\\_development/types\\_of\\_leader\\_development.asp](http://www.opm.gov/ses/executive_development/types_of_leader_development.asp)

<sup>19</sup> [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DOC-284580A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DOC-284580A1.pdf)

<sup>20</sup> <http://spectrumtalk.blogspot.com/2008/03/excellence-in-engineering-why-secrecy.html>

<sup>21</sup> [http://www.fcc.gov/Bureaus/Miscellaneous/News\\_Releases/1996/nrmc6060.txt](http://www.fcc.gov/Bureaus/Miscellaneous/News_Releases/1996/nrmc6060.txt)

issues should be developed. The State Department model<sup>22</sup> might be one for follow. Allowing responsible expression of employee concerns may actually decrease “leaks” as staffers feel that their thoughts are at least being considered rather than being totally ignored.

2. **Ex parte Rules** The Commission should start to enforce its long standing *ex parte* rules at least with warnings and then following with sanctions for repeat offenders after adequate notice. It should clarify how the rules are to be enforced and the responsibilities of FCC employees in this area. For example, does the provision of §1.1206(b)(1) that filings be sent to employees attending oral presentations imply that these employees have an obligation to review the filing to assure *de minimis* compliance and report concerns under §1.1214? It is not clear. Similarly, OGC should stop its “shell game” in which it searches for excuses to avoid *ex parte* compliant adjudication. Dealing with late filed *ex parte* notifications should really not be that difficult. After all, IRS knows how to deal with late filed tax returns without long adjudications!
3. **Innovation** Lessig has recently proposed replacing FCC with an entirely new “Innovation Environment Protection Agency”.<sup>23</sup> I do not agree with this proposal and it is unlikely to gain political traction. But he is right that FCC has real ambivalence towards innovation, particularly disruptive innovation. §7 of the Communications Act is not the most brilliant piece of legislation Congress has ever adopted, but FCC has also erred in basically ignoring it for 20 years. FCC desperately needs clear guidance from Congress on innovation policy. This should be done by replacing § 7 with a more practical framework. Hopefully, the new Commission could help propose the new approach.

The lack of a clear FCC policy towards innovation complicates capital formation for innovative technologies. The start and stop nature of recent FCC rulemaking is very stressful on companies funded with venture capital – a fact rarely recognized at FCC. For example in the TV White Space Proceeding (Docket 04-186) the Commission voluntarily announced a schedule<sup>24</sup> on 9/11/06 (perhaps a bad omen right there) that planned a set of final rules in 10/07. They actually were adopted in 11/08 and still haven't been published in the *Federal Register*.

While the opponents of this rulemaking favored endless delay, the proponents were “burning through cash” as the Commission delayed its decision month after month. While this is less severe for a division of a major corporation that can work on multiple projects, it is a severe problem for a VC-funded startup, the basic engine of the “new economy”. In the UWB proceeding, two of the 3 startups that pressed the Commission for new rules had severe financial problems within a year of the decision and their original investors lost most or all of their investment. In the Northpoint proceeding, the main proponent spent considerable legal and technical resources to achieve terrestrial sharing of the 12 GHz DBS band and ended up with virtually no tangible benefit. A few more Pyrrhic victories like these and new technology wireless startup will find it impossible to raise capital.

---

<sup>22</sup> <http://www.state.gov/s/p/of/abt/c8333.htm>

<sup>23</sup> <http://www.newsweek.com/id/176809>

<sup>24</sup> [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-06-1813A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-06-1813A1.pdf)

While Pioneer's Preference became less important after the beginning of spectrum auctions and was eliminated by Congress, there is a vital need to recognize that *some* new technologies are not addressed through the technical deregulation that is part of most auctions. They face the same regulatory hurdles that lead to the original need for Pioneer's Preference. The Commission and Congress should find new ways to lower the regulatory barriers to these technologies to facilitate their capital formation so it is comparable to other technical areas.

4. **Enforcement of equipment rules** The *ex parte* rules are not the only rules where the Commission has little interest in enforcement. As I have written elsewhere<sup>25</sup>, the equipment authorization enforcement area is subject to severe mood swings. Yes, there were millions of dollars of fines for selling TVs that were not properly labeled as analog only. But in the XM/Sirius merger it became clear that FCC had never acted on routine marketing of overpowered Part 15 FM transmitters even after NAB complained. The only marketing that gets attention is that which gets a complaint from a major player at FCC. There is virtually no real market surveillance for rule compliance. What little surveillance exists is done by private labs (TCBs) who have mixed incentives to snoop on their clients and rely upon samples the clients send them. Absent complaints from important parties, there is no sampling of what is actually sold at retail. Someday some party will sell thousands of noncompliant interfering devices that are not noticed until massive interference occurs and the units will be impossible to retrieve. This is why realistic market surveillance and enforcement is needed.
5. **Inspector General Reform** Recently, the Department of Justice Inspector General was named by the National Law Journal as its lawyer of the year.<sup>26</sup> The House Energy and Commerce Committee report tells us that the FCC's IG is under investigation. While the report recommends that the FCC's IG be appointed by the President subject to Senate confirmation, like major agency IGs, that is unlikely as there are already too many positions in Washington subject to this time consuming appointment process. The FCC's IG is subject to the same language of the Inspector General Act of 1978 as amended<sup>27</sup> as the other agencies' IGs - except the language about appointment. However, all of the FCC's IGs have come from internal staff without any specific IG-related experience. It is likely they *all* were chosen to avoid "shaking the boat". A simple reform would be for the new FCC to pick an IG who has senior level IG experience at another agency and a proven track record of impartial investigation and public service. I hope that the Senate confirmation hearing for the next Chairman will address this point.
6. **FCC Website** The current FCC website design was created under Chairman Hundt and was well designed for that era. However, it is hopelessly out of date in the contemporary world and almost inaccessible for the real public. While it has a huge amount of information, needless clutter makes it nearly impossible to find anything. For example, EDOCS and ECFS, the 2 separate systems for rulemaking documents, are easy

---

<sup>25</sup> <http://spectrumtalk.blogspot.com/2008/04/think-faa-is-only-agency-with-severe.html>;  
[http://spectrumtalk.blogspot.com/2007/08/chinese-toy-recall-possible-lessons-for\\_21.html](http://spectrumtalk.blogspot.com/2007/08/chinese-toy-recall-possible-lessons-for_21.html)

<sup>26</sup> <http://www.law.com/jsp/nlj/PubArticleNLJ.jsp?id=1202426910145>

<sup>27</sup> <http://www.ignet.gov/>

to use if you know the docket number but there is no general system to find docket numbers if you don't know them or to find comment due dates.<sup>28</sup> On the other hand, FCC is the *only* commission/board in the whole federal government to list all its commissioners on the top home page, so that information is certainly easy to find!

- 7. International Bureau Reform** Chairman Hundt created IB to improve FCC's international efforts. But it has wandered astray. Most people believe that it institutionalizes the satellite industry's primacy in international spectrum matters because IB is the licensing bureau for satellite systems. Instead of leadership at the ITU, it has fallen into representing the loudest voices in US industry. It has closer contacts with NTIA and IRAC than with the rest of FCC due to its conference work and tends to pander too much to government users rather than seeking national interests. WRC preparation is done in an advisory committee environment where many of the working groups act to minimize input of nonmembers.

Serious consideration should be given to moving satellite licensing and rulemaking to another bureau so as to normalize relationships with various industries and IB. WRC Advisory Committee leaders should be given firm guidance on the level of transparency expected – a level comparable to the better working groups in the past would be a reasonable goal for all groups. Some routine rotation of IB staffers to the rest of the Commission would improve their understanding of domestic policy issues.

- 8. Harmful Interference** The key issue in spectrum management is whether the benefits of a new spectrum use outweigh the risk of "harmful interference". What is harmful interference? §2.1 repeats the vague ITU definition, and the Spectrum Policy Task Force urged clarifications. But the Commission has lost all interest in the problem since such interest offended existing powerful license holders, who would prefer to stomp on new innovative spectrum users in nontransparent rulemakings. Meanwhile, other spectrum regulators overseas are making progress on describing the real rights of licensees, both so they have reasonable known expectations and so new users have expectation of what they might be allowed to do. Thus there has been progress in Australia and the UK on Spectrum Usage Rights<sup>29</sup> and in CEPT, at EC direction, on WAPECS<sup>30</sup>. FCC should restart efforts in this area, building on overseas efforts as necessary.
- 9. Learning from Past Problems** FCC has little institutional memory and prefers to bury past mistakes - which usually are not noticed anyway until there is a new chairman. But regulation in a complex field naturally leads to some errors and one could learn from them. Thus FCC learned little from the early 1980s problems of TV/land mobile interference below channel 14 and above channel 69, most notably the WVEU Atlanta case. These resulted in lack of attention to complex adjacent band interactions. Similarly, it failed to learn from the 800 MHz Nextel/public safety problem of the early 2000s. (Perhaps it even learned the wrong thing - that the problem depended *only* on

---

<sup>28</sup> The OET docket site, [http://www.fcc.gov/oet/info/docket\\_comments/](http://www.fcc.gov/oet/info/docket_comments/), was a good start in this direction. But it only covered OET's dockets and is not being maintained at present.

<sup>29</sup> <http://www.ofcom.org.uk/radiocomms/isu/sursguide/>

<sup>30</sup> [http://rspg.groups.eu.int/doc/documents/opinions/rspg05\\_102\\_op\\_wapecs.pdf](http://rspg.groups.eu.int/doc/documents/opinions/rspg05_102_op_wapecs.pdf)

band plan issues. It did not.) If FCC had an adequate IG one function might be to write up why problems like these happened and what can be done to prevent them in the future.

**10. Title II Experiments** Part 5 of the Commission's Rules deals with rapid authorization of new technology experiments in the spectrum area. These approvals are nonprecedential and can be revoked promptly in case of unexpected problems. To help stimulate technology in the Title II area, I urge the new Commission to explicitly add a section to Part 5 to allow rapid experiments in nonspectrum technology that would, in effect, be short term nonprecedential waivers of Title II regulation. A public notice in the early 1990s indicated that this was policy, but it is doubtful that many are aware of it.

**11. Federal Government Spectrum Issues** As a result of the §301/§305 dichotomy, FCC and NTIA function in parallel regulating "nongovernment" and "government" spectrum. As mentioned before, Nixon and Carter era policies make real NTIA spectrum leadership impossible. Relocating the President's §305 power to an entity with real leadership potential and political clout is essential. The agencies that are IRAC members prefer to control the show, but they really need "tough love" and accountability, not pandering and cheerleading by the NTIA staff. Real management of federal spectrum use is key to both improving its efficiency but also for contributing to economic growth by exploring innovative ways of sharing federal spectrum based on new generations of technology and designing federal systems to facilitate sharing on an interference free basis.

NTIA's inability to control FAA and its quasi independent spectrum management efforts<sup>31</sup> is but one sign of its real impotence with respect to other agencies. Similarly, FCC in recent years has let relations with FAA deteriorate and prefers to ignore the fact that FAA has some spectrum authority under the Airways Facilities Act.

**12. Public Safety Leadership** FCC has created a Public Safety & Homeland Security Bureau, but has it really taken an effective leadership role in the key public safety communications issue? In the Nextel 800 MHz affair FCC, in effect, just waited until Nextel could get a majority of public safety licensees to agree to a plan and then rubber stamped it with only some financial fine tuning. (The current implementation difficulties then should not be a surprise.) The D Block impasse may indicate that it was pandering too much to public safety interests in creating rules for a partnership that were impractical in practice. Creating new public safety wireless options without sunseting some earlier technologies will inevitably continue the public safety interoperability tower of Babel.

The nation desperately needs an effective interoperable public safety communications network. It probably is unlikely without a massive infusion of federal funds, possibly \$20-30 billion. But in the present climate public spending and public safety are important. FCC should help lead the way on this problem.

---

<sup>31</sup> See FAA Docket FAA-2006-25002