

# APCO REPORTS



## ASSOCIATED PUBLIC-SAFETY COMMUNICATIONS OFFICERS, INC.

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Volume 8 Number 9

September 1992

Calling it the most comprehensive review of the policies and rules governing the Private Land Mobile Radio (PLMR) services since their inception in the 1930s, the Federal Communications Commission — in a Notice of Proposed Rulemaking — proposes revising the PLMR services and modifying the policies that govern them. The Commission is asking for comment on proposals to:

- 1) Create new private land mobile radio channels by splitting existing channels between 72 and 512 MHz;
- 2) Create a marketplace mechanism giving applicants the ability to obtain channel exclusivity in the 150-174 and 450-470 MHz bands;
- 3) Designate a block of channels for wide-area, highly spectrum-efficient operations;
- 4) Provide users technical flexibility to convert to more advanced technology;
- 5) Introduce three broad radio services to replace or supplement the 19 existing PLMR services;
- 6) Reduce permissible power and antenna height to increase frequency reuse; and,
- 7) Substitute a new, simpler and clearer Part 88 for Part 90.

The Commission said these proposals are designed to reduce congestion, meet future communications capacity needs and permit, facilitate and encourage licensees to be spectrum-efficient.

At the Commission's meeting prior to the press conference announcing the proposed rulemaking, Commissioner Irvin Duggan wanted to know the impact of the proceeding on public safety communications. He noted that the Commission all too often assumes that all private radio licensees are commercial entities and are able to absorb the cost of regulatory changes. Ralph Haller, Chief of the Private Radio Bureau, responded by referring to the public safety pool that will be created and the long implementation period for narrowband channels.

Haller also noted that the FCC would be "attuned" to the concerns of public safety agencies and make accommodations if the time periods established were still too short. Commissioner Duggan then suggested that the Bureau should remain "exemplarily attuned to the concerns of public safety." Haller noted during the exchange that of all the private radio services, public safety has the most serious spectrum shortages. The text of the proposed rulemaking will not be released until about November 9. Commission staff have indicated there probably will be a 120-day comment period after the text is released.

The Commission stated that in the past seven decades, PLMR has become one of the largest, most important areas regulated by the FCC. When making new PLMR spectrum allocations, the Commission

has been innovative and has required or induced the industry to be innovative as well. Although the current rules for the bands in use longest have been amended often, they remain based on much earlier technologies and regulatory concepts. The Commission pointed out that many PLMR channels are now unacceptably crowded and that its rules for certain bands are unacceptably archaic and convoluted.

Consequently, the Commission proposed a series of major changes in the way it regulates the PLMR services below 512 MHz. First, the Commission proposed spectrum efficiency standards to increase capacity. These standards would generally reduce channel spacing to 6.25 kHz or less, creating 2,200 to 3,100 new channels depending on the geographic market, while providing technical flexibility. To ease the transition to spectrum-efficient technology, the Commission proposed a two-stage process that provides many years for existing systems to fully convert to narrowband or similarly efficient technology.

Second, the Commission proposed a channel exclusivity option in the bands above 150 MHz. This would be accomplished by using a market-based approach called "exclusive use overlay," which involves achieving exclusivity through concurrence of existing users. In addition, the Commission would leave a significant number of channels available for licensing on the traditional shared use basis.

Third, the Commission proposed to designate about 250 channel pairs in the 150-162 MHz band for wide-area, highly spectrum-efficient operations. These channels would be made available to five licensees in each of seven regions on either a shared basis or as 50 channel exclusive blocks.

Fourth, the Commission proposed to consolidate the current 19 radio services. The Commission would either (a) consolidate the current radio services into three broad radio services (Public Safety, Non-Commercial and Specialized Mobile Radio) plus a General Category Pool encompassing all three services; or, (b) retain the current services and assign to those services their existing frequency assignments, but assign all new frequencies to the proposed new broad categories and the General Category pool.

Finally, the Commission proposed new technical and operational standards. For example, the Commission would significantly reduce permissible transmitting power levels to permit efficient geographic co-channel reuse. In addition, the Commission proposed to permit centralized trunking, to set aside channels for specific operational characteristics, and generally to simplify the rules. The new Part 88 would eliminate more than 500 rules and footnotes. The Commission said these changes would greatly expand capacity and improve quality of service, without imposing unreasonable burdens on present or future licensees. The notice was issued October 8. A docket number was not announced. The Private Radio Bureau contact is Doron Fertig at 202-632-6497 or Eugene Thomson at 202-634-2443.

**5,000 ATTEND 58TH APCO ANNUAL CONFERENCE & EXPOSITION IN SEATTLE:** One of the highlights of the Annual Conference & Exposition in August was the annual Washington Regulatory Panel. Panel moderators were John Lane and Robert Gurs of Wilkes, Artis, Hedrick & Lane, APCO's counsel. Panelists were:

**Kent Nakamura** -- the Counsel to the Private Radio Bureau. He's been a legal advisor to two different FCC Commissioners and was Assistant General Counsel for Administrative Law, Deputy Chief of the Tariff Division of the Common Carrier Bureau. He was in private practice and at one time was with the firm that represented APCO and he did APCO work in his early years of private practice.

**Michelle Farquhar** -- the Senior Legal Advisor to FCC Commissioner Duggan. She has served as a special assistant to two general counsels at the FCC. She also was with the Mass Media Bureau.

**Robert Mayher** -- with the NTIA which is part of the Department of Commerce, which is the executive branch regulator and manager of communications, and is the telecommunications advisor to the President on matters of operations and policy. He is an international expert on spectrum management in the automation of spectrum management systems.

**Tom Stanley** -- the Chief Engineer at the Federal Communications Commission and Chief of the Bureau of Engineering and Technology. He worked for Bell Labs and the U.S. Army Signal Corps and

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worked for the Institute for Defense Analysis before he joined the FCC some 11 years ago. He has been reporting directly to the last three chairmen of the FCC and is the Chairman's advisor on international spectrum matters.

The following are excerpts from the panel discussion:

**John Lane:** To start things off, I would like to focus for a minute on the current, what we call, refarming docket of the FCC which portends a tremendous change for everyone who deals with land mobile radio. This is a private radio docket, 91-170, and there are comments that have been filed, at least the initial round has been completed, and I would ask Kent Nakamura how does he see the Commission proceeding at this point? Where do you see things moving Kent?

**Kent Nakamura:** I think John, we are probably going to go to rulemaking fairly quickly. . . . At this point, I think we are probably looking at one NPRM (Notice of Proposed Rulemaking).

**John Lane:** Tom Stanley, do you look upon this docket as a tool to alleviate the shortage of spectrum for existing users, or are you trying to create spectrum for new users and new uses? Or are you trying to do both?

**Tom Stanley:** The Commission, when it undertakes something like refarming, really doesn't do it with one particular motivation. In a sense, we try to make more efficient use of what I'll call this intense lower spectrum, and at the same time we obviously keep an eye on what future needs could be. If I understand the current plan, it's largely to still stay within the private mobile arena.

**John Lane:** Do you or anyone else on the panel see any immediate or direct impact on public safety coming out of this docket?

**Kent Nakamura:** I think that there will be some impact on public safety, just because I think public-safety is probably facing some of the same kinds of problems as a lot of other users below 800 MHz -- not enough spectrum. Too many people lined up. My boss, Ralph Haller, has said we can't go on like this for any extended period of time because if we keep going like this we are going to be grid-locked. We have to do something to the extent that we try to fix problems for all the other folks and we are going to try to fix them for you as well. And we are talking about some new technologies, some regulatory schemes to encourage, although not mandate, efficient use of the spectrum. We don't want to force anybody into trunking or spread spectrum or anything like that. But on the other hand, not knowing exactly where the technology is going to take us, we would like to see what is possible. And one way of doing this is to make some of the channels available for different kinds of techniques, different kinds of ways of using the spectrum more efficiently -- pack more into less.

**Tom Stanley:** The impact, I think largely, is going to be on the evolution of mobile systems in the future. I think public-safety's role then is to watch that and observe that and begin to plan for how mobile is going to evolve and see what their own particular role is.

**John Lane:** Do you share Kent's view that he doesn't foresee the Commission forcing some of these new technologies, but rather trying to encourage their use, rather than mandating things like trunking?

**Tom Stanley:** The Commission is very much out of the mandate "any kind of technology" mode. I think a lot of these techniques speak for themselves -- increased efficiency, lower costs. So we really don't even have to push some of these improvements. If it's an improvement, I think in many areas it will run ahead.

**John Lane:** In any case, how about the relatively unique uses and circumstances of public safety. Do you see that being accommodated in this proceeding as it advances? And I wonder whether the Commission is prepared to be flexible enough and adapt to making sure that public-safety needs are accommodated.

**Kent Nakamura:** . . . the Communications Act makes very clear the Commission is supposed to pay attention to special needs and requirements of public safety. But I think that, going forward, we're probably going to be looking to public-safety community more heavily than we have in the past. I think we rely a lot on what APCO does and its Project 25 -- Digital Standards Proceeding. You can do it faster probably than we can probably with closer attention to what your needs are than we can. I think as we get into it further, the Commission is going to have to rely more and more on outside community because we are going to be forced into fewer and fewer resources.

**John Lane:** Michelle, did you have a comment on this subject? Either for you or for Commissioner Duggan?

Michelle Farquhar: I think Commissioner Duggan would certainly agree that because of our continuing scarce resources, which are becoming scarcer and scarcer every year, we find that we are going to have to rely more on your own resources, APCO's, and other public-safety communities, to tell us what your needs are, and to the extent that you can do your own studies and bring those to our attention and also to the attention of important congressional committees and to the NTIA. I think that will be really helpful because there will be less chance for us to do that.

**Bob Gurs: Kent, you've touched on the digital issue. I guess this is a question for you and Tom as well. How does the Commission intend to proceed on digital radio? That's one of the technologies which is really driving the whole refarming issue. It's something that APCO is very heavily involved in. What will be the Commission's role in the development of digital?**

Kent Nakamura: . . . when this whole thing started . . . we started a proceeding to see what would it take to do digital standards -- how long would it take, and what would be involved in doing it? I think we finally came to the conclusion that for us to do it would be a very long, drawn-out process, and would probably make life more difficult for everybody than if we just kind of stood back from this one. And I think we were really pleased that APCO decided to take up the cause and started Project 25. . . . Standard setting is a real tough thing . . . In an area like communications where you constantly have developing technology, you make the standards too tight, and (you) are basically stuck with a bunch of old stuff that makes it very, very hard to try to change things to adapt to the new technologies that may come along.

**Bob Gurs: Related to the digital, obviously, is bandwidth issues. Do you see the Commission picking at least an initial band width to go after, leaving the door open, or just letting the industry decide what kind of bandwidth they want to operate under?**

Kent Nakamura: I think if we did anything, at least in our Bureau, I think it would be probably in the area . . . of common air interface . . . just to insure the interoperability.

**Bob Gurs: So if somebody wants to try to use a narrower band width, the Commission certainly would not stand in the way, I assume.**

Kent Nakamura: I think we would look favorably on that.

**John Lane: Michelle, we've heard a lot of talk about the use of fees; and a fee-based system that would at least be intended to encourage spectrum efficiency. Is the Commission seriously considering the use of fees to foster spectrum efficiency?**

Michelle Farquhar: Well the Commission is definitely, seriously considering the use of fees. Not so much to encourage efficient spectrum use, but I think more to offset the cost of its own operations. And people have argued that one way to do this -- it would almost be like a tax approach -- is to tax people or fee them on their particular bands of spectrum, how much spectrum they use. And that would, of course, then encourage spectrum-efficient technology. But that is not the approach we have taken so far. It's more of -- right now the fee would be related to the cost that government spends on those particular licensees. Whether it be from rulemaking costs, licensing costs, or any other types of costs, enforcement for instance, that would be attributed to those particular licensees. At this point, however, state and local licensees are exempt from any of our fee proposals. So I think your interests are protected for the moment.

**Bob Gurs: One of the other issues in refarming proceeding is whether the Commission should look at consolidating the 19 different radio services that are out there right now. APCO represents a couple of those -- police and local government and some of the pools. And a lot of the other services have members who are involved in APCO. What's the outlook of some sort of consolidation in the near future of those services?**

Kent Nakamura: I think that we are looking at some kind of major consolidation in some of these 19 categories.

**Bob Gurs: There was some talk by some people outside of public safety, as well as inside, that perhaps the forestry, highway, police and so forth could be consolidated at some point. Is that at least in the area of consideration for you?**

Kent Nakamura: We're thinking about it.

**Bob Gurs: Okay, I won't push you any further on it; except in a related issue of pooling, which is something APCO has been very successful at. Do you foresee more frequencies being subject to pooling, like the 800 pools that we are involved in right now?**

Kent Nakamura: Probably. But . . . I don't think we are thinking about throwing APCO into any of those pools. It might change.

**John Lane: Are we likely, in the future, to see greater reliance placed on the use of third-party carriers or entrepreneurs? And will it reach a point where public-safety may be forced onto private, other systems, third-party systems?**

Michelle Farquhar: Even though there may be some trends in that direction, I know Commissioner Duggan feels very strongly that we need to balance the need for increased spectrum efficiency with the need for network reliability; especially in the public-safety context. And he has really been very involved in that issue in terms of helping to establish a network reliability council, which has a specific subcommittee looking at 9-1-1 and other emergency services. And I would hope that before any such move would develop or trend toward private carriers for public-safety services, that we would look specifically at the reliability issues involved.

**John Lane: Well reliability is critical in public-safety and third-party systems and public systems tend to go down in times of peak use and in emergencies -- earthquakes, fires, and things like that. So, there is some concern in the public-safety community -- and that's the reason I ask the question, that the Commission planners may well be trying to force public-safety.**

Tom Stanley: . . . I think you certainly heard that Commissioner Duggan, and certainly the Chairman, are very much interested in reliability and the effectiveness of public-safety systems that have to use the spectrum. I think we have the same kind of concerns that you all do.

**John Lane: Thank you. That's reassuring. Let me turn now to future needs as far as spectrum is concerned for public safety . . . What is the Commission doing, if anything, to evaluate and satisfy the future public-safety spectrum needs, taking into account new public-safety uses of the spectrum, as well as current needs for traditional uses? The spectrum that the Commission provided for in the national planning was admittedly not adequate to meet current and foreseeable needs in certain areas of the country.**

Kent Nakamura: I think we are looking . . . at some creative solutions. And I think it's no secret that the Commission likes the idea of channel splits, as does APCO. And we may not even go straight to 12.5. We might go all the way down to 6.25 or something like that, without waiting. If we're going to do an improvement, it's probably better than trying to . . . make people change out; rather than do it twice, do it once.

**John Lane: Do you think you can satisfy it with channel splitting, but no new spectrum?**

Tom Stanley: That was actually the point that I was going to make. Harkening back to that 1984 study, I think we said then, and we certainly still believe now, improvements in technology are absolutely essential. We really should squeeze every channel we can out of the existing allocation. But even so, and I think the events of the past few years have shown that's still not enough. Unfortunately, there is no specific ongoing effort right now that addresses those needs. We have on the shelf, or in the freezer, on the back burner, whatever metaphor you want to choose, the old UHF land mobile sharing docket. It is not dead. But it's, shall we say, frozen solid, waiting for high-definition television decisions. I'd like to think we're about a year from those decisions. I think after that additional spectrum for mobile needs . . . in particular including public safety, should be very much brought back before the Commission. But right now, that's not right in front of us but in our thoughts.

**John Lane: There is a tremendous amount of spectrum that is potentially available once that issue is out of the way, one way or the other, because if you push the whole broadcast system up on the UHF band, that opens up the VHF band. I know the broadcasters don't want to give it up. They want to keep two channels, but I hope that the Commission will not allow that big spectrum give-away. I think there is so much to be gained by the more efficient use of the broadcast spectrum instead of continually whittling down the land mobile spectrum to split channels and re-split channels and split them again, while broadcasters are going in the opposite direction. The Commission is proceeding to give everyone another six megahertz channel on every radio station, another channel to broadcast digitally while squeezing and squeezing the other side of the house. Some day this has got to end. I've made my speech. Go ahead.**

Tom Stanley: For the last five years, I think, some of these decisions have been held in abeyance. And I think we're all sort of uncomfortable with the reality of that. But we made our call in the mid 1980s. We have allocated a great deal of spectrum, specifically for public-safety, specifically for the State of

California, so I think we're very happy and proud of what has been going on for public-safety in effect and as . . .

**John Lane: Don't get me wrong. We're grateful.**

**Tom Stanley:** I understand. In our own priorities, television is next. In our own way, we are squeezing them. Whether they . . . hold onto the channel, shame on us if that actually happens. The scheme -- and it's been five years in the making -- pretty much is to develop, force the broadcasters. Let me mention what high-definition is. High-definition is not a new service. It's an improvement in an existing service. It's a very important legal distinction because that makes it easy for them to hold onto a new channel or to get a new channel without going through some hearings -- and there are some legal issues there. But what that actually means is, that we are going to have to take the old table of allocations and lay on top of it a new table. So that we are really not disturbing the old NTSC standard that we have all kind of grown to love. But without disturbing that we have the new table of allotments right on top of it without interfering. And we can only do that largely because of the new standard that is going to be coming - it's digital. It must be at least 10-20 dB - less in terms of carriers. So it's going to be easier to fit into . . . the existing allocation. The good news is that the new table of allotments has a feature that, if we so choose, and it's very much of an open issue, we can force the broadcasters to pick a channel and it will all be in the UHF band. That is technically possible. We didn't even know that could happen a year ago. So if the new service for the existing broadcasters is all in the UHF, that liberates six times 12 megahertz in the VHF channels all across the country. Probably it will be about 15 or 20 years from now. I think the hard part is to make that happen and turn that loose over to new services -- a new reserve. And so that is something that, considering the propagation benefits of the VHF, you know, it's just too good to pass up, and I think we all should start planning for that.

**John Lane:** I might also remind the panel that Docket 84-232 is still an open item at the Commission. And the projections that were made in that docket for some of the hot areas of the country have already proven to be very much below what has actually occurred. So, it seems to me that it's incumbent upon the Commission to update that proceeding and maybe it's something that APCO has to do, but it's certainly in the Commission's interest and in APCO's interest to focus on future needs and future uses and expand the use of the spectrum. You know, video is now almost a must with the police out on the road -- and you need more spectrum to move video, and we are now moving data and voice, but video is coming right along after it. So there are big and important spectrum needs that will have to be addressed as we go forward. **Bob Mayher,** what are you doing over at the Department of Commerce and in the Bush Administration in dealing with the kinds of problems that we have just discussed and future needs?

**Bob Mayher:** Acting as the President's Advisor on telecommunications, we, last year, put out a study on spectrum management . . . In this, we outlined a plan for the future for all of the spectrum in the United States. We need to look at all the spectrum, the spectrum controlled by the FCC and the federal government spectrum controlled by NTIA. In addition, we need to not only look at the requirements that come from public safety, we need to look at requirements that come from other radio services. In at least a general way internationally, there are 39 radio services, and much more in the United States. And to just focus in on one, without looking at the whole problem, it really isn't possible to, I think, come up with an effective plan. . . . One of the things that you told us when we put out a notice of inquiry last year . . . was that if we want to address these requirements we need to plan effectively for it. We can't continue to react to one problem at a time. We need to plan for it. So, listening to your comments, going ahead with that, what we set up was a fairly aggressive program to look toward future requirements. I mean, the simple focus on future requirements, you know, is -- somehow give me 1.3 gigahertz, the spectrum below 3 gigahertz, and we'll solve all our problems. Well that's sort of impossible to do. There just isn't enough down there considering all the things. But what we do need to do certainly is to focus in on requirements for all radio services. We've done a couple of things in this area. We've set a broad program of examining from internal staff study, from talking to experts like yourselves on requirements, from talking to the FCC on what the requirements are for the future. And in addition to that we've put out a notice of inquiry, which I hope you will respond to, and others here individually will respond to, asking for requirements. Come back to us and tell us what are the requirements as you see them for public safety. Of course we are going to look at them carefully, considering everybody's comments. Of course, if you add up all your requirements and add up everybody else's requirements, we are probably going to come back with my 1.3 gigahertz kind of number. Now a second part of that is to look at what spectrum is available. Not only the spectrum that is available in the private sector with FCC, but the government spectrum as well. One

of the problems we have there is getting together a comprehensive data base -- just how the assignments are presently used. We're presently pulling that together. We hope to put together a plan of use for that spectrum, which we will need to extensively discuss with the FCC, with yourselves, and others. And I hope that, looking at it from a broad range point of view, and not reacting to an individual problem, it will in the long-range get us the best solution to this problem.

**John Lane:** Thank you. Let me now move to another hot topic. And that's 2 gigahertz microwave. As you know, the Commission, in a major proceeding to create a spectrum pool for new and emerging technologies has proposed to take a portion of the 2 gigahertz microwave's spectrum and reassign it and force current users off the band. And APCO has been, and other public-safety entities have been, very active in this proceeding. Let me ask whoever would care to respond: When do you expect there will be a final decision in this matter at the Commission level? Tom or Michelle? What's the current timetable for completing this docket?

**Tom Stanley:** Before Congress started drafting legislation to stop us, we basically had suggested that it's something we feel that could be drawn up before the end of the year. I think considering that it seems to have such high active interest, we really aren't in the position -- I mean, it's obviously one of the Commission's highest priorities -- to look very hard at all the issues. We are really not seeking to force anyone out. If at all, we are looking for an arrangement - and again, politicians love the win/win construction, to find a construction that permits new services, such as personal communications into spectrum in some ways that it already has existing tenants or incumbents, such as the 2 gigahertz users; to have the new licensees buy the old ones out or underwrite the costs to move to other frequencies, which we feel are physically there and can be made just as reliable. So again, we wince at the term "are forced." If anything, we feel that this is an area that voluntary negotiations . . .

**John Lane:** Well as far as the public-safety licensees, the state and local government, you are proposing to grandfather them.

**Tom Stanley:** Exactly. We completely exempted them from any of the process. They are free to negotiate their spectrum, but don't have to if they so choose.

**John Lane:** That's my understanding. The legislation would do the same.

**Tom Stanley:** Right.

**Michelle Farquhar:** Just to add something to what Tom said. I know Commissioner Duggan is concerned that we not act too prematurely in this whole docket and especially until we take care of congressional concerns. And he is also concerned that we be sure that we have fully accommodated the new spectrum bands where the microwave users would move to before we close out that docket as well.

**John Lane:** How does the current FCC proposal affect present users, public-safety users and local government micro-wave systems? Now, you are grandfathering existing users. How about, Tom, the expansion of a present system? In other words, to run another link to another location using the same band and the same frequencies.

**Tom Stanley:** We tried to clarify that. We probably didn't spend enough time talking about that in our initial order of last January or February and we issued a subsequent public notice to try to clarify that. What concerns the Commission generally is what I will call speculation. If the right to use a particular 10 megahertz channel in a downtown, major urban area has any value, and we have strong indications that it does, we basically don't want to force a, what I call, "gold rush" to those frequencies. If I understand it Kent, the license fee is currently what - \$100-\$135? What we don't want to see happen is every large city in the country, someone plunking down \$135 and then raising the ante saying it's a half a million to buy me out. And if personal communications takes off like everyone thinks it will, that is exactly what will happen. I mean, the right to use a 2 gigahertz band will be enormously valuable. That's not what spectrum is about.

**Bob Gurs:** The notice that you were talking about, Tom, on modifications and additions said that it was during the pendency of the proceeding. I guess the question that a lot of people have here is, what about after the pendency of the proceeding. I know it's an open issue, but how do you see the consequence some of these people had or are thinking about moving or making modifications or additions, but maybe aren't ready to do that in the next three or four months. Should they even be looking at 2 gigahertz?

**Tom Stanley:** That's a tough one. It's a multi-point question. It's our view that this is where the next

generation of mobile communications is going to be. In a sense, the Commission identified it - the rest of the world picked it. Roughly it's twice where current mobile communications is, current state-of-the-art is, roughly 800-900. The rest of the world is very much looking to the 1800-2000 megahertz band for what I will call the next spectrum meal for mobile. In terms of planning for that, maybe judicious planning should look higher than 2 gigahertz for fixed service. I mean, we are talking, in many cases, relatively short hops. An enormous amount of hops are under 10 miles and use 2 gigahertz - and there are lots of technical choices there. The one term you said - "during the pendency of the hearing" - that's sort of lawyer talk. Once we basically decide how to proceed, then it won't be relevant. We don't have to freeze the situation anymore and force people into different categories. We are basically saying, until the Commission itself decides how to go ahead, we want to discourage speculation.

**Bob Gurs: Given that there is going to be some new mobile or other technologies in the band and given that existing 2 gigahertz state and local government users, at least, will be able to maintain their systems on a primary basis indefinitely, is the Commission looking at the problems of interference? The current interference guidelines are designed to deal with one fixed microwave user interfering with another. A lot of people have systems now . . . they are worried about interference. How does the Commission proceed on that? And you might want to comment on the relevance of the PCS proceeding in that regard.**

Tom Stanley: Just last week the FCC issued a, I'll call it a follow on proposal in the same docket as this 2 gigahertz proceeding that was opened up in January and in February, and we are calling it the rechannelization and reallocation proposal. The Utilities Telecommunications Council and (a manufacturer) of microwave equipment, petitioned the Commission to look very hard at those other bands. The bands at 4, a couple of bands at 6, 10, 11 gigahertz, and so on. Their claim is that specific technical rules should be, for example, like channelization, done before the industry can think seriously about moving from 2 gigahertz to say, 6 gigahertz common carrier. And last week we basically agreed with them.

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