

Summary of Kevin Kearns Comments

Some History

- The current Public Safety 700 MHz bandplan was developed over many months of careful consideration
- The National Coordinating Committee (NCC) process was highly inclusive of PS and commercial interests
- Participants did their best to balance the various operational needs against technological realities, spectrum availability, and economic pragmatism.

Timing vs. Technology

- At the time the bandplan was developed, contemporary broadband technologies were not fully realized in the equipment and commercial domain
- The focus of the bandplan was on creating a mix of “narrowband” and “wideband” channels to meet the voice and data needs of Public Safety

Things have changed...

- Since then, there has been increasing interest to utilize contemporary commercial services operating at higher bandwidths and data rates
- This interest seems to be mostly concentrated in urban marketplaces where commercial broadband services are being used to support public safety applications.

Commercial Services Shortcomings

- Some have argued that commercial services are not robust enough or do not cover adequately in rural or rural-fringe areas and therefore are not suitable for Public Safety use
- They argue that new alternatives are needed for ‘public safety grade’ broadband systems.

New Broadband Services Impact on Channel Planning

- Broadband will take spectrum specifically channelized for this purpose
- This broadband spectrum needs to come from somewhere
- The two basic choices are
 - Take it from the 700 MHz spectrum that is due to be auctioned (basically what Cyren Call proposed)
 - Take it from the current Public Safety wideband allocation (basically what Frontline proposed)

FCC Activity

- The FCC conducted several rounds of comments on issues in this arena, the latest being FCC 07-72, a Report and Order and Further Notice of Proposed Rulemaking. Comments on this are due May 23rd and Reply Comments 7 days later on May 30th.

Order & FNPRM

- In the FNPRM, the FCC concludes:
 - Allocation of any of the 700 MHz spectrum due for auction can't be changed to Public Safety use without Congressional action
 - The FCC's hands are tied and observers feel the needed Congressional action will never happen and they also conclude that Public Safety needs broadband.
 - The FCC proposes to end the allocation of any of the current Public Safety 700 MHz spectrum for wideband channelization, and move the spectrum into a nationwide regulatory process to create a nationwide interoperable broadband network.

Kevin's Detailed Observations

- The real meat of the issue begins at Paragraph 250 on Page 91 (Section 4 of the FNPRM)
- The FCC implies that part of the reason they conclude that there is more need for broadband than wideband is the lack of licensing activity for the wideband channels
- Kevin suggests that there are many more reasons for this lack of system deployment activity than Public Safety not needing wideband

REAL Reasons Why There is Slow Deployment of 700 MHz

- The FCC itself has created regulatory uncertainty and has likely limited the speed at which the vendor community has developed and brought products to market
- In urban markets where funds would be available to deploy wideband systems in this first couple of years, the spectrum isn't available due to incumbent TV broadcasters
- Local governments typically take 3-5 years to build the administrative and political support to fund system deployments like these
- Licensees are also deeply mired in the re-banding process (Wiz comment)
- They also observe in 251 and 252 the responses to previous NPRM's indicated strong support for Public Safety broadband spectrum

Flawed Assumptions

- Kevin suggests that their interpretation of the licensing activity is flawed, and that licensing activity should in no way be used to gauge Public Safety's interest or need in wideband spectrum and wideband systems.

Local Flexibility was Always Intended

- While it may be true that there has been strong interest in a broadband option, the consensus from PS commenters on those NPRM's was that the use of aggregated wideband channels should remain the domain of the Regional Planning Committees to decide
- This is lost in the FNPRM, and the FCC's tentative decision will shut the RPCs out of the decision process going forward
- Access to wideband spectrum will be removed from RPC purview and used to support the nationwide broadband network

Asking the Right Questions Helps...

- They have also never framed the right questions or issues in this discussion. For example:
 - If the question is asked, “Does Public Safety need spectrum allocations to allow the deployment of broadband technologies?” the answer will likely be an overwhelming “YES”
 - If you ask the question, “Does a Public Safety broadband strategy need to have interoperability as a core component?” you would also likely get an overwhelming “YES”

Asking the Right Questions Helps...

- But, if you ask the question:
- “Does this broadband strategy need to have a nationwide footprint and nationwide interoperability?” the “Yes” answer ratio may diminish since many local agencies would not see pressing value in nationwide interoperability for broadband applications when they don’t even have local/regional interoperability for their voice communications needs...

Asking the Right Questions Helps...

- And further, if you ask the question, “Does Public Safety need broadband spectrum and a nationwide broadband interoperable network at the expense of giving up the current wideband channels
- And giving up control at the RPC level of wideband channels
- And the ability for local agencies and consortiums or agencies to build interoperable wideband systems?”
- Then the answer would probably be a resounding “NO.”

Border Issues...

- The FCC also conclude that to implement their broadband strategy, they would re-manage the current Public Safety bandplan to aggregate the narrowband channels into the spaces of the former TV channels 64/69

Border Issues...

- This would create a real usability/coordination problem in the Canadian border area since Canada is clearing 63/68 for Public Safety Land Mobile Radio use, but **not** 64/69
- We'd be back to square one where we need to negotiate with Canada to try and get parallel use of 64/69 so we have bandplan harmony at the border
- We would also reduce our creditability with Canada since they would see us constantly changing the rules
- Without Treaty modifications and bandplan harmonization, utilization of 700 MHz spectrum on the Canadian border would be very difficult

Border Issues...

- Further, the Canadians moving to 63/68 for LMR solutions may not much like the U.S. once again is making spectrum decisions without prior consultation. The prospect of co-channel use of 1.25 MHz broadband channels on the U.S. side of the border may complicate their channels placement plans and cause them to want to further modify treaty requirements, further delaying implementations.

700 MHz Incumbent Relocation Costs

- In Paragraph 264 they ponder where the money might come from to move any currently deployed Narrowband systems
- They suggest Public Safety may have to fund relocation themselves
- Kevin suggests that this deserves a resounding “NO!”
- The “significant benefits” don’t seem to me to be adequately documented in their record to make incumbents fund their own reprogramming

Administering a Nationwide 700 MHz Broadband System

- There are a host of issues related to concept of establishing a national trust of some form to administer this spectrum and create public/private opportunities for system buildouts and operation
- I'd suggest not putting much focus on this given the limited time
- APCO and others are working hard to make sure that if the FCC crams this down our throat, the governance process will do the best it can to protect the interests of Public Safety

Kevin's Summary

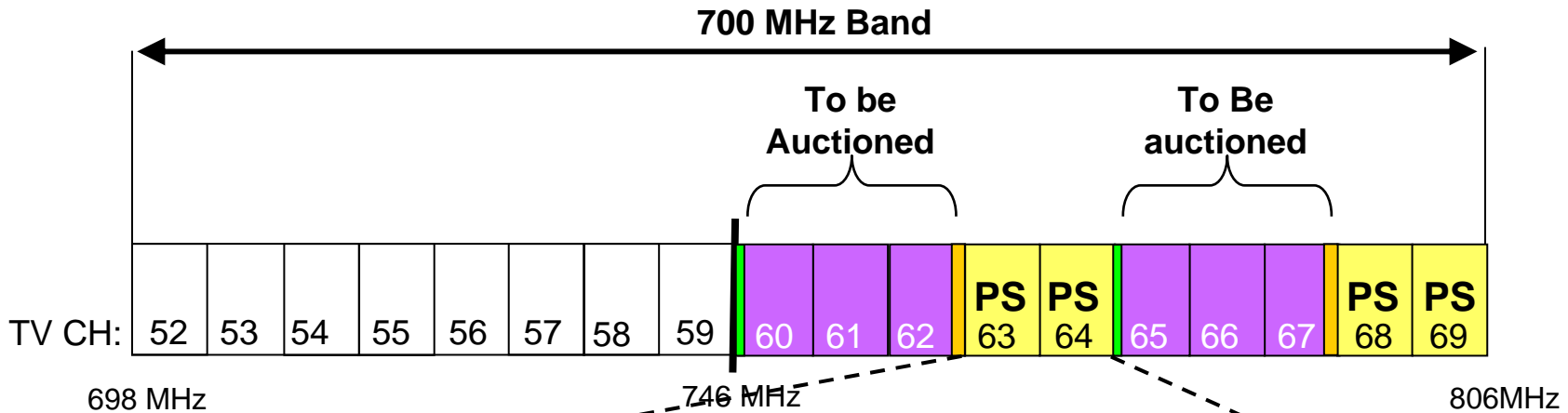
- My personal recommendation is that the RPC and local participants need to focus on filing comments that are very clear on how you feel about the communications needs you face in your agencies
- If your needs would be well served by a nationwide interoperable broadband system, then support the FCC's conclusions
- If instead you need local/regional options to deploy wideband systems that you can directly assure will be implemented with the coverage, capacity and reliability you require for public safety, make that view known

Motorola Comments

700 MHz Update – May 2007

- The FCC adopted a proposal on April 25th that would prevent your ability to make local/regional decisions about 700 MHz data technology deployment. The Further Notice of Proposed Rulemaking (FNPRM) would change the rules as follows:
 - Public safety agencies would not be able to individually license private high-speed data networks at 700 MHz – broadband would only be available on a nationwide network under one national license
 - Local users will be able to license narrowband channels only
 - Users would have to wait until the nationwide system is operational in their jurisdiction (possibly 8 – 10 years in rural areas)
 - The FNPRM proposes no option for a local broadband data system with customized coverage – the nationwide operator would determine the service area
 - There are no provisions for users to choose a wideband data network that would provide the same coverage as private voice networks

700 MHz Data Proposals

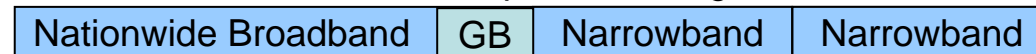


Current Plan



- Local users can own data licenses & systems
- Implementation based on user needs and schedule
- No provisions for broadband
- Narrowband channel block split in two segments

FCC FNPRM Proposal



- One nationwide broadband license – no local data channels
- No option for local broadband system with customized coverage
- No provisions for users to choose wideband
- Narrowband consolidated with guardband (GB) for protection

What Can You Do?

- File comments with the FCC by the May 23, 2007 deadline. Let them know that you:
 - Want the opportunity to license a local 700 MHz high-speed data network where you control coverage, capability, and capacity
 - Want access to a nationwide network for interoperability but need a local high-speed wireless data network at 700 MHz, especially before the national system is completed
 - Need a portion of the data spectrum to be under local control
 - Need flexibility to choose Wideband or Broadband
- Comments need to be filed electronically - for help contact: Al.Ittner@Motorola.com or call 847-576-3536

Questions and Discussion

- Floor is open to further discussion and comments