tyco
Electronics

M/A-COM

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February 4, 2004

Marlene H. Dortch, Secretary
Federal Communications Commission
Office of the Secretary
445 12th Street, SW
Washington, DC 20554

Re: Ex Parte Notice, Docket WT 99-87

Dear Ms. Dortch:

On February 4, 2004 the undersigned met with John B. Muleta, Chief of the Wireless Telecommunications Bureau; Catherine W. Seidel, Deputy Chief of the Wireless Telecommunications Bureau; D'wana R. Terry, Chief of the Public Safety and Critical Infrastructure Division of the Wireless Telecommunications Bureau; and Aaron N. Goldberger, Legal Advisor in the Office of the Bureau Chief of the Wireless Telecommunications Bureau.

The topic of discussion during this meeting was the 2nd Report and Order in Docket No. WT 99-87, *Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended.* Specifically discussed was the pending M/A-COM Petition for Reconsideration to such Report and Order.

Attached is the presentation used by the undersigned during this meeting. The attached presentation details the specific substance of the discussions during the meeting. A copy of the presentation was provided to each of the attendees during our discussion.

If there are any questions, please do not hesitate to contact me. I can be reached at (434) 455-9465.

Sincerely,

Robert J. Speidel, Esq.
Manager, Regulatory Policy

Attachment

cc: WT 99-87 (electronic filing & via USPS)
John B. Muleta, w/o Attachment (via USPS)
Catherine Seidel, w/o Attachment (via USPS)
D'wana R. Terry, w/o Attachment (via USPS)
Aaron N. Goldberger, w/o Attachment (via USPS)

WT 99-87 2nd R&O

It's not really Refarming

(Band Structure Changes & Manufacturer Efficiency Mandates)

It is only Refarming-like

(Licensee Efficiency Mandates)

M/A-COM Petition for Reconsideration

(timely filed August 18, 2003)

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Discussion Outline

- Legal Sufficiency of M/A-COM Petition
- Band Structure in Pictures
  - Before and After Refarming Changes (PR 92-235)
  - After Refarming & 2nd R&O Changes (WT 99-87)
- Suggestions on New Band Structures
- Another's Petition to Delete §90.203(j)(4)
- Another's Opposition to M/A-COM Petition

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Legal Sufficiency of Petition

There has to be more than "I don't like your decision"

- Error and/or New Information
  - Misinterpretation of AMTA request
  - Misinterpretation of pre-existing FCC Rules
  - Lack of Technical Neutrality
  - Wasted R&D dollars

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Misinterpretation of AMTA request (error)

"On June 19, 1998, AMTA filed a petition for rule making proposing that certain Part 90 licensees be required to employ new spectrum-efficient technologies. Specifically, AMTA urges that non-Public Safety licensees in the bands between 222 MHz and 896 MHz be required to deploy technology that achieves the equivalent of two times the capacity of most current operations. The gain in efficiency would result in one voice path per 12.5 kilohertz of spectrum, using a 25 kilohertz frequency." (Further Notice of Proposed Rulemaking In the Matter of Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended (WT Docket No. 99-87), Promotion of Spectrum Efficient Technologies on Certain Part 90 Frequencies (RM-9332), Establishment of Public Service Radio Pool in the Private Mobile Frequencies Below 800 MHz (RM-9405), and Petition for Rule Making of The American Mobile Telecommunications Association (RM-9705); FCC 00-403, dated November 9, 2000 and released November 20, 2000 at paragraph 137)

AMTA requested mandate of "equivalent efficiency" NOT bandwidth limitation

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Misinterpretation of FCC Rules (error)

2nd R&O Documentation alleges

"Specifically, since February 14, 1997, we have certified equipment for 25 kilohertz channels only if it is also capable of operating on 12.5 kilohertz and/or narrower channels. After January 1, 2005, only new equipment that operates on 6.25 kilohertz channel bandwidths will be certified. New equipment that operates on 25 and/or 12.5 kilohertz channels will be certified only if it is also capable of operating on 6.25 kilohertz or narrower channels." (FNPRM at paragraph 138)

But Refarming said

"The purpose of a spectrum efficiency standard is, in combination with a channelization plan, to expand capacity in a band of frequencies by requiring efficient operation. Such a standard should allow equipment manufacturers to offer a wide array of technologies using various bandwidths to satisfy diverse user needs." (Refarming R&O, FCC 95-255, June 15, 1995, at para 95 ff.)

§90.203(j) as adopted in 1995 & 1996 clearly endorsed the concept of "equivalent efficiency"

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Lack of Technical Neutrality (error)

Again Refarming said

"Such a standard should allow equipment manufacturers to offer a wide array of technologies using various bandwidths to satisfy diverse user needs." (Refarming R&O, FCC 95-255, June 15, 1995, at para 95 ff.)

Furthermore, the 2nd R&O says:

"...the Commission added NB technology or NB equipment will include all advanced technologies designed to operate with channel bandwidths of 6.25 kHz or less or equipment with 6.25 kHz equivalent efficiency such as TDMA (2 channels in 12.5 kHz or 4 channels in 25 kHz) (emphasis added)"

Yet the rules adopted in the 2nd R&O bar any technology with operating bandwidth greater than 12.5 kHz regardless of the equipment efficiency

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Waste of R&D $$$$ (new information)

Since Refarming R&O in '95 & MO&O in '96

- Manufacturers have invested in development of technologies to meet 2005 efficiency requirements, including technologies utilizing 25 kHz operating bandwidths.

If current 2nd R&O rules are allowed to stand as is, DESPITE GOOD FAITH RELIANCE on the FCC rules since 1996, many manufacturers will be forced to write off significant investment in highly efficient technologies operating on bandwidths greater than 12.5 kHz.

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One Practical Impact ???

As currently adopted

- All NEW radios, compliant with the P25, Ph. 1 Statement of Requirements are banished as of 1/1/2005
- Manufacture/Importation of ALL radios, compliant with the P25, Ph. 1 Statement of Requirements are banished as of 1/1/2008

The FCC intended to prevent PS from supporting existing systems for many years until transition is mandated ??

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Resolving the problem

Change the language in:

- 47 C.F.R. §90.203(j)(4) consistent with recommended language in M/A-COM Petition for Reconsideration
- 47 C.F.R. §90.203(j)(10) consistent with recommended language in M/A-COM Petition for Reconsideration
- footnote 3 to 47 C.F.R. §90.209(b)(5) consistent with recommended language in M/A-COM Petition for Reconsideration (N.B. Actual transition dates may differ to reflect licensee recommendations.)
- 47 C.F.R. §90.209(b)(6) consistent with recommended language in M/A-COM Petition for Reconsideration
- Restore language in 47 C.F.R. §90.20(c) and 47 C.F.R. §90.35(b) to indicate channel bandwidth limitations

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A Picture is Worth Many Words!

Band Structure in Pictures

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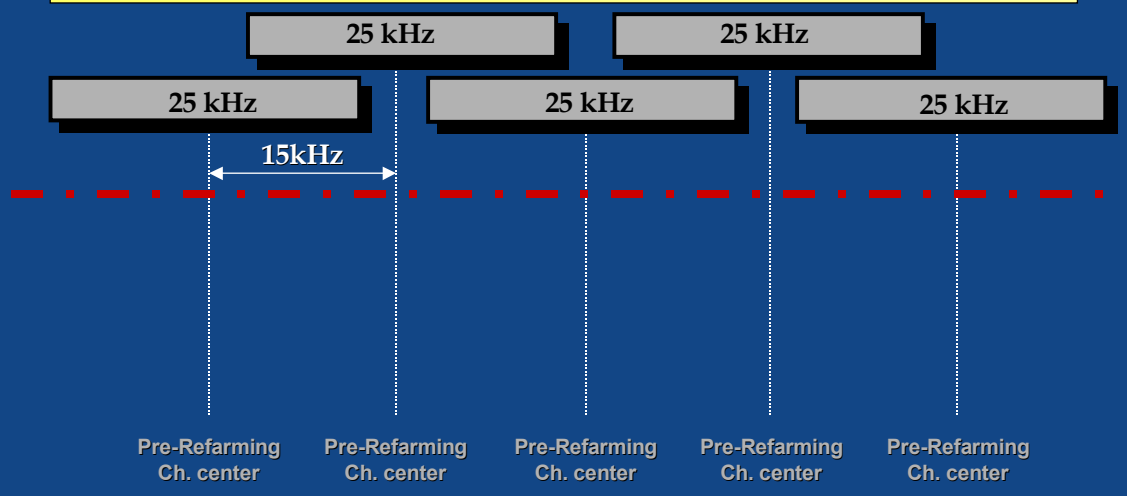
FCC VHF – HiBand – PreRefarming



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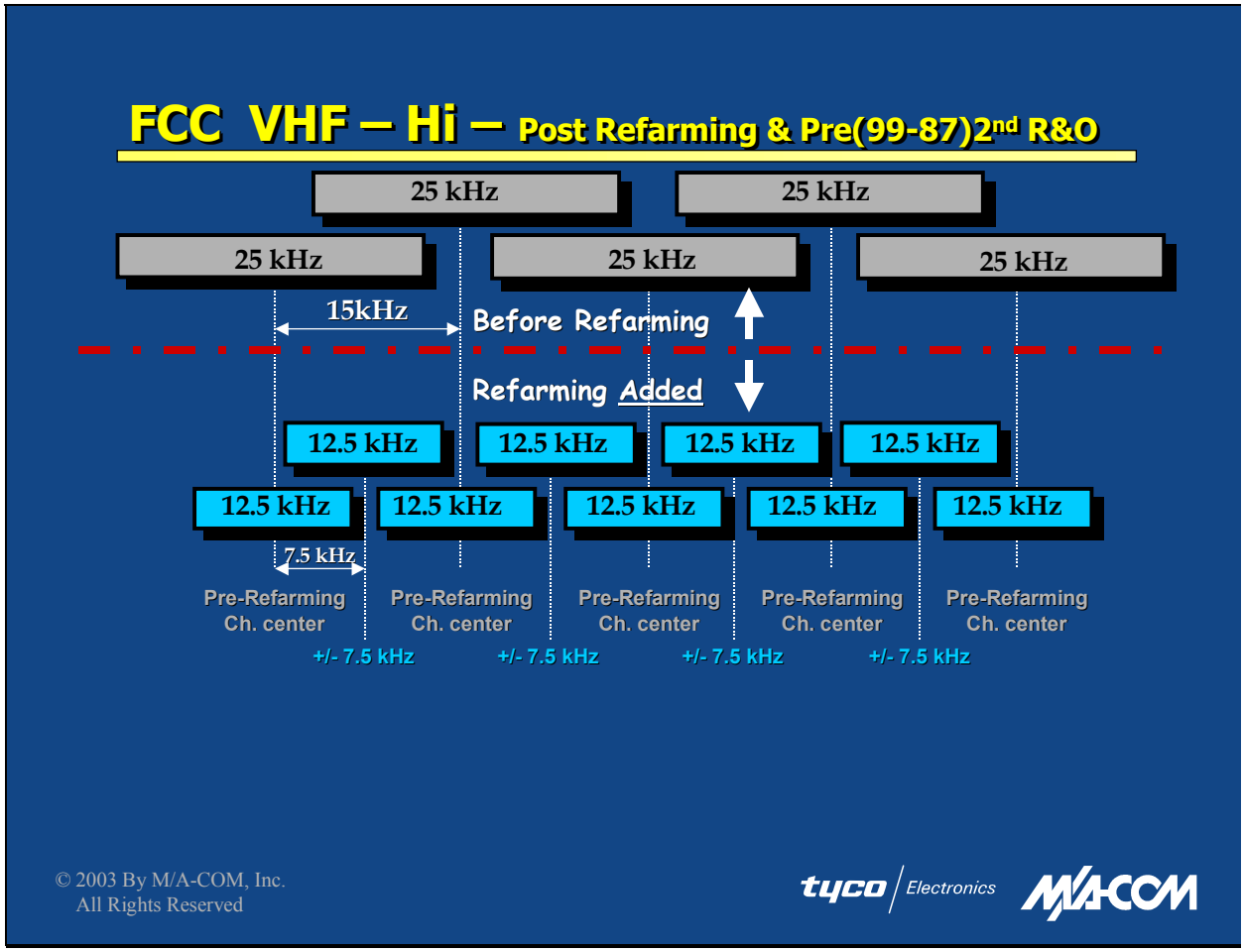
FCC VHF – Hi – Post Refarming & Pre(99-87)2nd R&O
25 kHz
25 kHz
25 kHz
25 kHz
25 kHz
15kHz
Before Refarming
Refarming Added
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
7.5 kHz
Pre-Refarming Ch. center
Pre-Refarming Ch. center
Pre-Refarming Ch. center
Pre-Refarming Ch. center
Pre-Refarming Ch. center
+/- 7.5 kHz
+/- 7.5 kHz
+/- 7.5 kHz
+/- 7.5 kHz
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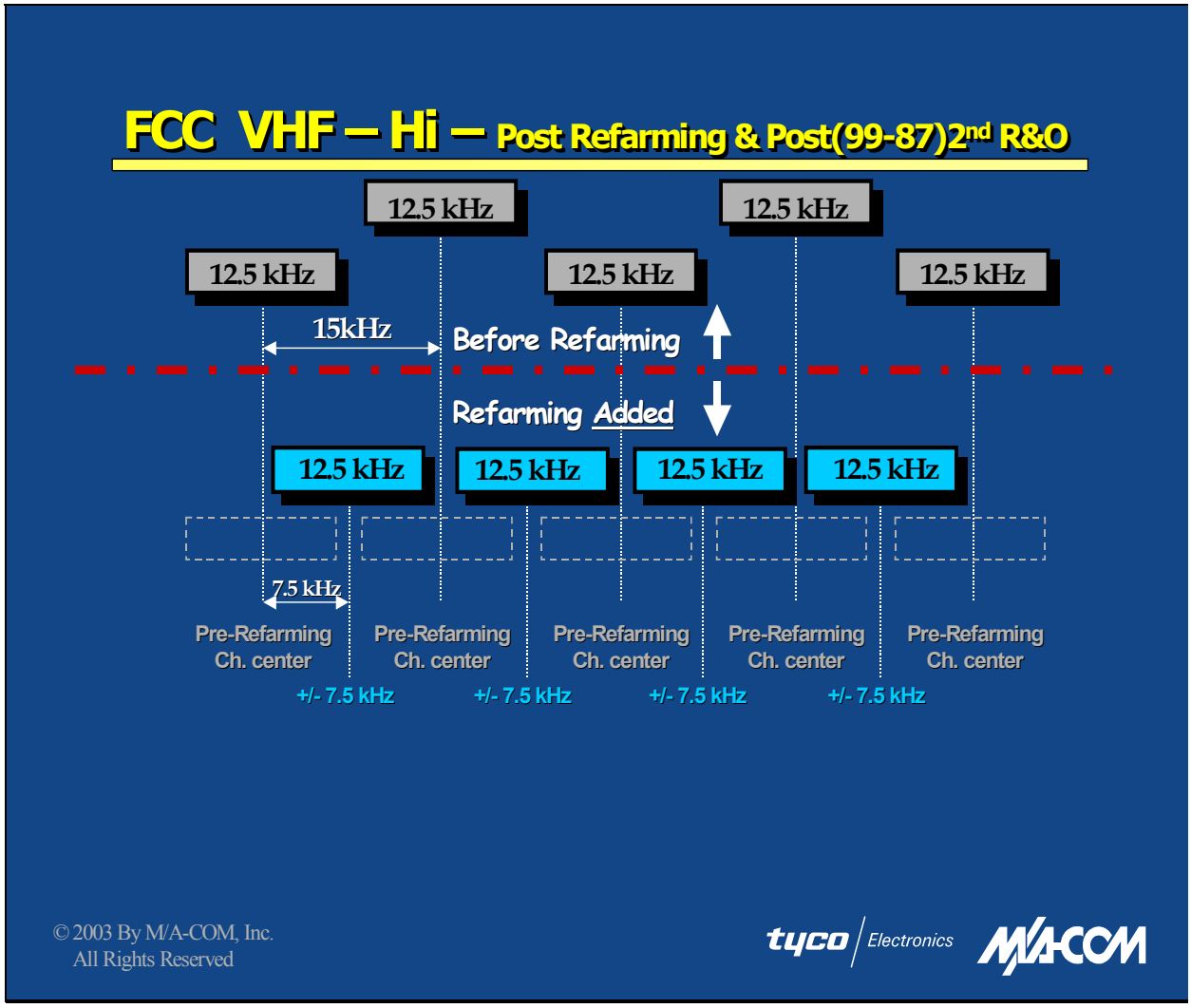
FCC VHF – Hi – Post Refarming & Post(99-87)2nd R&O
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
15kHz
Before Refarming
Refarming Added
12.5 kHz
12.5 kHz
12.5 kHz
12.5 kHz
7.5 kHz
Pre-Refarming Ch. center
Pre-Refarming Ch. center
Pre-Refarming Ch. center
Pre-Refarming Ch. center
Pre-Refarming Ch. center
+/- 7.5 kHz
+/- 7.5 kHz
+/- 7.5 kHz
+/- 7.5 kHz
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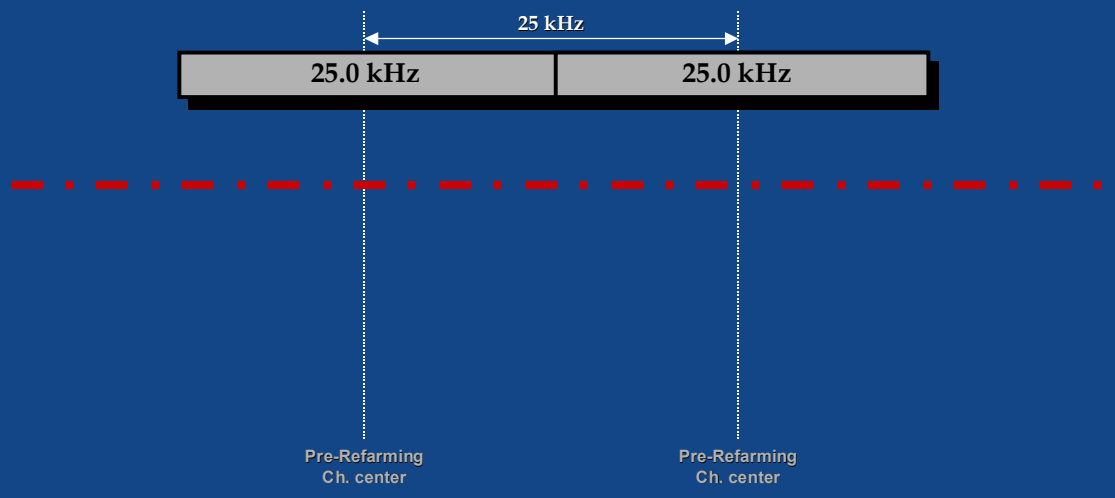
FCC UHF – Before Refarming



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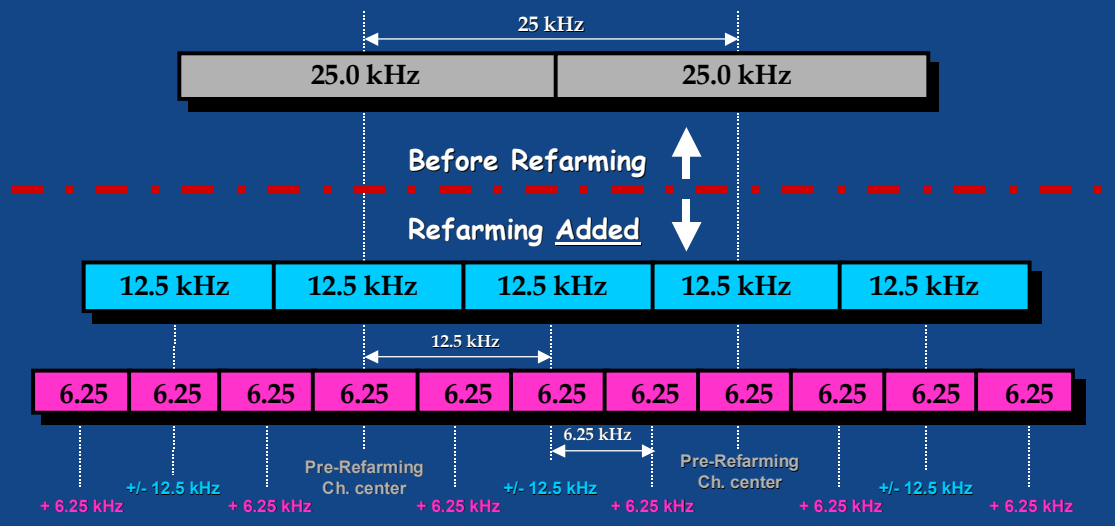
FCC UHF – Post Refarming & Pre(99-87)2nd R&O



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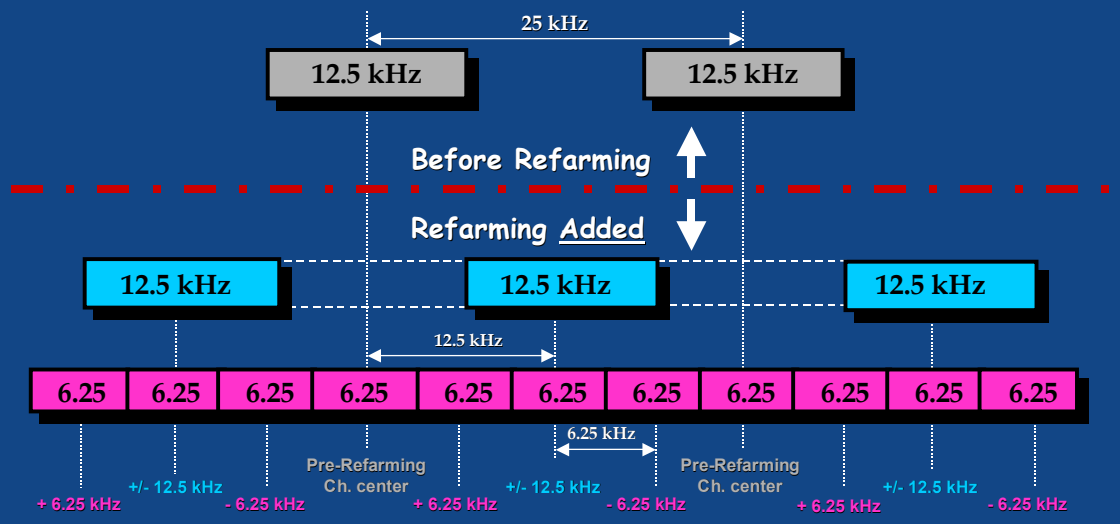
FCC UHF – Post Refarming & Post(99-87)2nd R&O



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Is It Time to Consider Changes ??

Suggested Changes to Band Structures

- with the proviso -

Timing Consistent with Licensee Efficiency Mandates

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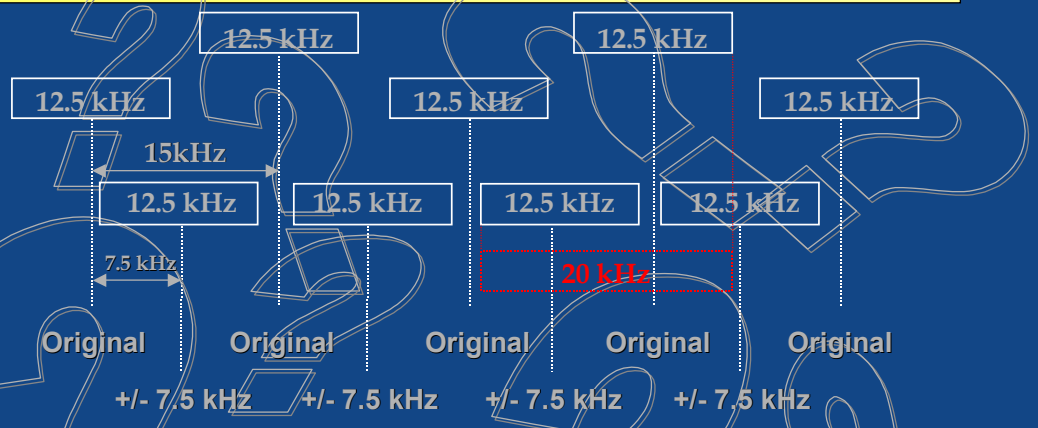
FCC VHF - Hi - Suggested Reorganization



Starting over may be the best solution for VHF!

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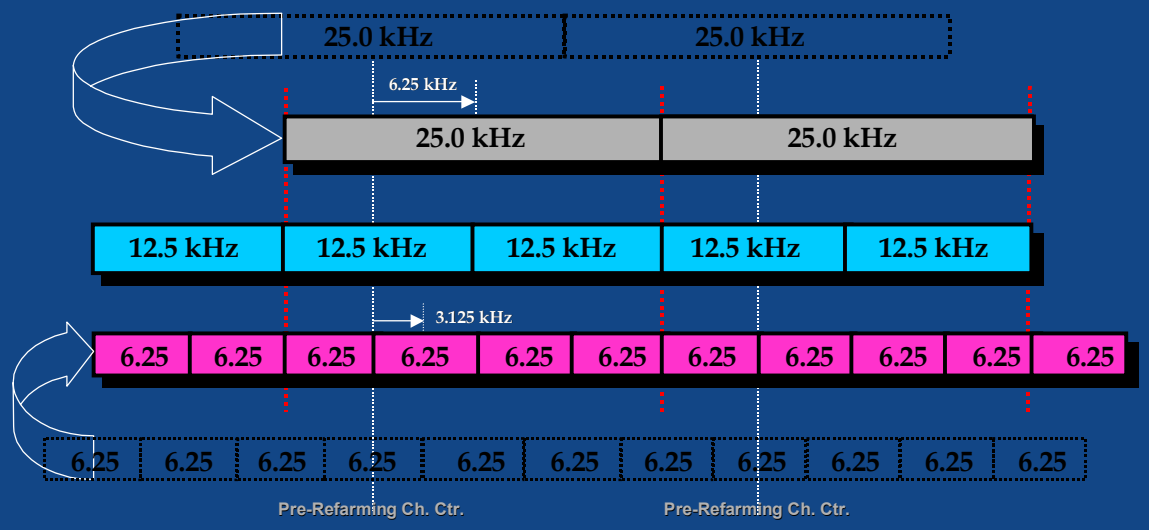
FCC UHF – Suggested Reorganization



N.B. 6.25 kHz shift in 25 kHz channel centers & 3.125 kHz shift in 6.25 kHz channel centers

12.5 kHz channel centers remain same as post-Refarming

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Another Entity's Request

"Please let us off the hook"

- in other words -

"Please delete the Manufacturer's 2005 mandate for 6.25 or equivalent efficiency"

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Another's Petition to Delete §90.203(j)(4)

Motorola Petition for Reconsideration, dated 8/18/2003 contains, in part the request to "...delete subparagraph (j)(4) {of 47 C.F.R. §90.203} and its subparts in their entirety

This request is fatally defective!

- **Procedurally**
  - Period for timely reconsideration of Manufacturer's Mandate for 6.25 contained in 47 C.F.R. §90.203(j)(4) EXPIRED in early 1997
- **Substantively**
  - One manufacturer's opinion does not satisfy the dictates of the Administrative Procedures Act

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Another's Petition to Delete §90.203(j)(4)

What should the Commission do?

At best, consider the "Request to Reconsider" 47 C.F.R. §90.203(j) as a Petition for Rulemaking pursuant to 47 C.F.R §1.401

The Commission could also note the availability of the "Waiver" process pursuant to 47 C.F.R. §1.3 and/or a "Petition for Stay" pursuant to 47 C.F.R. Part 1, Subparts A & C, for relief during the pendency of any possible Rulemaking

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Another Entity's opposition

"Maybe we should have thought of that?"

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Another's Opposition to M/A-COM Petition

Motorola Reply to Opposition, dated 10/6/2003 contains, in part, Opposition to the M/A-COM suggestion for the Commission to consider structural band changes

This Opposition is fatally defective!

- **Procedurally**
  - Period for timely opposition to Petitions for Reconsideration expired on 9/25/2003
  - A copy of the Opposition has NEVER been served on M/A-COM as required by 47 C.F.R. §1.429(f)
- **Substantively**
  - Decisions made in one proceeding wherein the circumstances are substantially and materially different are NOT controlling in the current proceeding

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Another's Opposition to M/A-COM Petition

What should the Commission do?

Ignore that portion of the Reply to Opposition purporting to be Opposition to the M/A-COM suggestion to consider structural band changes!

As a minimum, the Commission should characterize the M/A-COM suggestion to consider structural band changes as a Petition for Rulemaking

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Questions? Comments?

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For Additional Questions/Discussion

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