BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	
	)	
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	WT Docket No. 96-86
	)	

COMMENTS OF RCC CONSULTANTS, INC., ON THE NINTH NOTICE OF PROPOSED RULE MAKING AND THE PROPOSAL OF THE FEDERAL COMMUNICATIONS COMMISSION FOR THE IMPLEMENTATION OF A NATIONWIDE, BROADBAND, INTEROPERABLE PUBLIC SAFETY NETWORK IN THE 700 MHZ BAND

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COMMENTS OF RCC CONSULTANTS, INC., ON THE NINTH NOTICE OF PROPOSED RULEMAKING AND THE PROPOSAL OF THE FEDERAL COMMUNICATIONS COMMISSION RESPECTING THE IMPLEMENTATION OF A NATIONWIDE, BROADBAND, INTEROPERABLE PUBLIC SAFETY NETWORK IN THE 700 MHZ BAND

I. Introduction and Executive Summary

RCC Consultants, Inc. ("RCC"), respectfully submits its comments (the "RCC Comments") in response to the *Ninth Notice of Proposed Rulemaking* released by the Federal Communications Commission (the "Commission") in the above-referred-to dockets on December 20, 2006 (the "Ninth NPRM").

RCC is deeply involved as an engineering consulting firm in matters concerning public safety radio communications, including planning for and designing 700 MHz radio systems. RCC is fully familiar with the prior proceedings in the above-referred-to dockets and related proceedings before the Commission.

In the Ninth NPRM, the Commission proposes to:

- "allocate 12 megahertz of the 700 MHz public safety spectrum from wideband to broadband use";
- "assign this spectrum nationwide to a single national public safety broadband licensee";
- "permit the national public safety broadband licensee also to operate on a secondary basis on all other public safety spectrum in the 700 MHz band";

- "permit the licensee to use its assigned spectrum to provide public safety entities with public safety broadband service on a fee for service basis";

- "permit the licensee to provide unconditionally preemptible access to its assigned spectrum to commercial service providers on a secondary basis";

- "facilitate the shared use of commercial mobile radio service (CMRS) infrastructure for the efficient provision of public safety broadband service"; and

- "establish performance requirements for interoperability, build out, preemptibility of commercial access, and system robustness." (Ninth NPRM ¶ 4)

The gravamen of the RCC Comments is that:

- **The Commission had exceeded its statutory authority by the manner in which it has proposed to establish a national public safety broadband network (the "Commission's Public Safety Broadband Proposal"):**

    - *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(B) by proposing to license an entity which is neither a state or local government entity nor a nongovernmental organization that is authorized by a government entity whose primary mission is the provision of public safety services;*

    - *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(C) by proposing to permit the license of the spectrum to be utilized for the national public safety broadband network to provide commercial service providers access to the licensee's assigned spectrum;*

    - *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(A) by failing to establish broadband services that have as their sole or principal purpose the protection of life, health or property; and*

    - *The Commission does not have the authority to adopt the Commission's Public Safety Broadband Proposal when that proposal violates the plain meaning of the requirements of 47 U.S.C. § 337(f)(1).*

- **The Commission's Public Safety Broadband Proposal is inconsistent with the overwhelming weight of the comments of public safety agencies with respect to the manner in which wideband or broadband networks should be created and governed and represents an unsupported discontinuity in regulatory development respecting such networks.**

- **The Commission's Public Safety Broadband Proposal is unwise as it reflects an unworkable proposal or a proposal so fraught with uncertainties, problems, and the potential for conflict and other adverse developments that it is unlikely to assure**

"the rapid deployment of a nationwide, interoperable, broadband public safety network, and thereby improve emergency responsiveness." (Ninth NPRM at ¶ 3)

- *The Commission's Public Safety Broadband Proposal is not based upon a sound operational foundation because:*

    - *The Commission's Public Safety Broadband Proposal proceeds upon a misunderstanding of the needs of first responders;*

    - *The Commission's Public Safety Broadband Proposal does not include the requisite degree of regional flexibility;*

    - *The establishment of a monopoly is not the best approach to promoting the rapid deployment of a nationwide, interoperable, broadband public safety network and thereby to improve emergency responsiveness;*

    - *The Commission has taken upon itself too much responsibility for the specification of the proposed network;*

    - *The Commission has misconceived the sources of operational progress in the development of effective interoperability for public safety first responders;*

    - *The Commission has not addressed operational problems associated with a national licensee's control of the preemption of access;*

    - *The Commission has not addressed operational problems associated with the absence of local control of communications access in an emergency;*

    - *The Commission has not addressed the need for practice exercises in order to maintain effectiveness of interoperations and the dependence of such exercises on local/regional control of the radio system which is relied upon;*

    - *The Commission has not addressed either the differences in technical standards between public safety radio systems and commercial radio systems or the problem of public safety technical standards' not being met and maintained;*

    - *The Commission has not addressed maintenance standards and network recovery requirements; and*

- *The Commission has not addressed the absence of operational alternatives for public safety agencies which have requirements not met by the national public safety broadband network proposed.*

- *The Commission's Public Safety Broadband Proposal is not based upon a sound technical foundation because:*

    - *The proposal is vulnerable to the unavailability of properly functioning cognitive radios;*

    - *The Commission's requirement of an IP-based architecture is not a self-executing specification;*

    - *The Commission's exclusion of wideband systems will result in coverage sacrifice or cost increases or both;*

    - *The Commission's licensing the 700 MHz spectrum dedicated to narrowband to the national licensee on a secondary basis is technically flawed;*

    - *The Commission has not addressed the undeveloped state of interoperability for data;*

    - *The Commission has not addressed the technical vulnerability implicit in all public safety agencies relying upon one broadband network for their interoperability requirements; and*

    - *The Commission has not addressed the consequences of public safety agencies choosing not to integrate their operations with the national public safety broadband network proposed or choosing not to monitor the transmissions made thereon.*

- *The Commission's Public Safety Broadband Proposal is not based upon a sound commercial foundation:*

    - *The qualifications established for the national licensee do not assure its success in the development of a national public safety broadband network;*

    - *The proposed national licensee is not, without major change, institutionally suited for the proper development of a national public safety broadband network proposed;*

    - *The proposed national licensee cannot reasonably be expected to act effectively for the thousands of public safety agencies which*

are potential users of the national public safety broadband network proposed;

- *Limitations of the proposed national licensee are inconsistent with the obligations imposed thereon by the Commission's Public Safety Broadband Proposal;*

- *Limitations placed upon the proposed national licensee by the Commission's Public Safety Broadband Proposal will materially impede the fulfillment of the licensee's imposed obligations;*

- *The national licensee will have at its disposal inadequate spectrum to make a commercial lease arrangement that would serve public safety interests; and*

- *The Commission's Public Safety Broadband Proposal may necessarily involve subsidies and other asymmetrical treatment of users that could imperil the adoption of the national public safety broadband network proposed.*

- *The Commission's Public Safety Broadband Proposal relies upon material unproven assumptions and fails to consider developments at the regional and local level in public safety that undermine certain of the assumptions upon which that proposal depends.*

    - *The Commission optimistically assumes that funding for the Commission's Public Safety Broadband Proposal will be made available upon terms that promote the development of ubiquitous interoperability;*

    - *The Commission assumes the commercial success of the Commission's Public Safety Broadband Proposal and the national licensee's commercial service provider partner and does not consider or make provision for failure;*

    - *The Commission optimistically assumes that the fee for service rates will be fair, reasonable, and attractive to public safety agencies and provides no mechanism for change if those rates do not attract users;*

    - *The Commission optimistically assumes the universal adoption of service from the national licensee and does not consider that the failure of universal adoption will fundamentally undermine the national character of the public safety broadband network proposed;*

- *The Commission optimistically assumes the viability of the public private partnership model in meeting the needs of public safety and does not consider the evidence to the contrary;*

- *The Commission makes very optimistic assumptions about cost savings without examining the bases therefor; and*

- *The Commission assumes without warrant that no regulatory framework is required for the operations of the national licensee and the national public safety broadband network proposed.*

- *The Commission's Public Safety Broadband Proposal is unlikely to meet the objectives set by the Commission therefor.*

These conclusions are supported in Parts II-IV of the RCC Comments.

In Part V of the RCC Comments, RCC supports the following suggestions respectfully made to the Commission regarding the development of a proper regulatory framework for wideband and broadband public safety networks in the 700 MHz band:

- ***The Commission withdraw the Commission's Public Safety Broadband Proposal and offer a new plan within the frame work established by 47 U.S.C. §337(a)(1) and (f)(1) and the policy concerns of the Commission;***

- ***The Commission recognize that 47 U.S.C. §337(a)(1) and (f)(1) preclude, as a matter of law and of practicality, the use of a single national licensee to achieve the policy goals of the Commission in relation to high bandwidth networks and national interoperability for public safety.***

- ***The Commission accept that 47 U.S.C. §337(a)(1) and (f)(1) remit the Commission, as a matter of law and of practicality, to the direct licensing of state and local government agencies and properly authorized non-governmental agencies, the use of existing institutions, and the setting of standards to achieve the policy goals of the Commission in relation to high bandwidth networks and national interoperability for public safety.***

- ***The Commission accept that 47 U.S.C. §337(a)(1) and (f)(1)(A) and(C) remit the Commission, as a matter of law, to the development of public safety wideband or broadband capability and interoperability without reliance upon commercial usage of the 700 MHz public safety spectrum.***

- ***The Commission work toward the development of a framework that is at once consistent with both (i) the statutory requirements of 47 U.S.C. §337(a)(1) and (f)(1) and (ii) the policy concerns of the Commission in relation to high bandwidth networks and national interoperability for public safety.***

- ***The Commission develop that policy framework by means of a rebalancing of certain judgments made by the Commission in the Ninth NPRM and a return of the balance to a position closer to that reflected in both: (i) the earlier pronouncements of the Commission in WT Docket 96-86 and (ii) the weight of public safety opinion.***

- ***The Commission adopt a bottom-up rather than a top down approach to the development of wideband and broadband public safety networks in the portion of the 700 MHz band subject to 47 U.S.C. §337(a)(1) and (f)(1).***

- ***The Commission should establish such standards as are appropriate to insure the requisite degree of interoperability among wideband and broadband public safety networks established in the portion of the 700 MHz band subject to 47 U.S.C. §337(a)(1) and (f)(1).***

- ***The Commission consider the development of a national broadband network with priority access for public safety users utilizing some or all of the 30MHz of spectrum set aside in 47 U.S.C. §337(a)(2) for commercial use and seek to address the requirement for competitive bidding by securing congressional action or by means of Commission-established bidding credits.***

Please note that in the RCC Comments, citations and authorities relied upon by RCC are placed in the main text. The footnotes are those that belong to the texts quoted in the RCC Comments.

II. The Commission's Public Safety Broadband Proposal Exceeds the Commission's Statutory Authority.

The authority for the adoption of the Commission's Public Safety Broadband Proposal must rest upon 47 U.S.C. §337(a) (1) which provided for the set-aside of 24 MHz of spectrum between 746 MHz and 806 MHz for "public safety services."

(See: In the Matter of Reallocation of television Channels 60-69, the 746-806 MHz Band (ET Docket No. 97-157), *Report and Order*, 12 FCC Rcd 22953 (Released January 6, 1998), where at ¶12 the Commission stated that as required by the Balanced Budget Act of 1997, "after consulting with and considering the views of the Secretary of Commerce and the Attorney General, we are allocating 24 MHz of spectrum to the fixed and mobile services on a primary basis for public safety services." (Footnotes omitted.") For the preceding notice of proposed rule making, see: In the Matter of Reallocation of television Channels 60-69, the 746-806 MHz Band (ET Docket No. 97-157), *Notice of Proposed Rule Making*, 12 FCC Rcd 14141 (Released July 10, 1997).)

It cannot be disputed that the Commission's Public Safety Broadband Proposal, which is to make use of 12 MHz of the 24 MHz of spectrum allocated pursuant to 47 U.S.C. §337, must meet the requirements of 47 U.S.C. §337(f)(1), which sets forth the definition of "public safety services," to be grounded in and duly authorized pursuant to 47 U.S.C. §337(a)(1), which provides for the allocation of the 24MHz of spectrum and limits usage thereof to "public safety services." (47 U.S.C. §337 derives from the Balanced Budget Act of 1997 (Pub. L. No. 105-33, 111 Stat. 251 §3004 (1997).)

RCC respectfully submits that:

- *The Commission's Public Safety Broadband Proposal does not meet the requirements of 47 U.S.C. §337(f)(1) and is, therefore, not properly grounded in or duly authorized pursuant to 47 U.S.C. §337(a)(1); and*

- *The Ninth NPRM*

    - *does not address at all the requirements of 47 U.S.C. §337(f)(1)(A) or (B); and*

    - *does not address adequately or properly the requirements of 47 U.S.C. §337(f)(1)(C).*

The Ninth NPRM, which quotes 47 U.S.C. §337(f)(1) in full, addresses the matter of the Commission's statutory authority and the statutory constraints thereon in and only in the following language:

> "44. *Related Legal Matters.* Under the Commission's current secondary markets rules, public safety licensees may lease their spectrum usage rights only to other public safety entities and entities providing communications in support of public safety

operations. The Commission determined based on the record then before it that public safety licensees should not be permitted to enter into spectrum leasing arrangements for commercial or other non-public safety operations.[1] Consistent with the reasons explained above for why we believe it would be advantageous to permit commercial use on an unconditionally interruptible basis, we propose that we should amend the Commission's spectrum leasing rules to permit the national public safety licensee to enter into spectrum leasing arrangements with commercial entities. We seek comment on this proposal. In addition, commenters may want to address whether the current standard in the general leasing context for determining what constitutes a transfer of control is appropriate for the proposed leasing arrangements.

"45. When adopting the spectrum leasing rules applicable to public safety licensees, the Commission contemplated the potential application of smart or opportunistic technological developments, such as cognitive radios, that could enable "interruptible" spectrum leasing arrangements.[2] Indeed, in a subsequent *Report and Order*, the Commission described technical methods that a cognitive radio could use to enable interruptible secondary use of licensed spectrum by other parties.[3] We seek comment on the potential use of technologies, such as cognitive radios, in connection with our proposal to enable the national public safety licensee to lease spectrum for commercial use.

"46. We also note that Section 337(a)(1) of the Communications Act requires that the 700 MHz public safety spectrum be allocated for "public safety services," and Section 337(f) defines "public safety services" as follows:

(f) Definitions. For purposes of this section:

> (1) Public safety services. The term "public safety services" means services –
>
> > (A) the sole or principal purpose of which is to protect the safety of life, health, or property;
> >
> > (B) that are provided –
> >
> > > (i) by State or local government entities; or
> > >
> > > (ii) by nongovernmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services; and

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"[1] *See* Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, 19 FCC Rcd 17503, 17529-31 ¶¶ 53-56 (2004).

"[2] *Id*. at 17531 ¶ 56; *see also id*. at 17546-53 ¶¶ 86-99.

"[3] *See* Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies, ET Docket No. 03-108, *Report and Order*, 20 FCC Rcd 5486, 5514-16 ¶¶ 80-90 (2005)." (Footnotes renumbered.)

> (C) that are not made commercially available to the public by the provider.
>
> In light of this statutory provision – particularly subparagraph (f)(1)(C) – we seek comment on whether it would be necessary, in order to allow the commercial use of this spectrum on an unconditionally preemptible, secondary basis, to make a specific allocation for such secondary use in the 700 MHz public safety band and then issue a separate license to the national licensee for purposes of offering such use of the network on this basis. If these measures are not statutorily required, we propose to incorporate directly into the national public safety license a license term permitting such commercial use. While we consider the proposal to comport with all statutory requirements, we welcome comment on the issue of whether our proposal is generally consistent with Section 337."

.In the quoted language, the Commission

- *Focused its attention "particularly [upon] subparagraph (f)(1)(C)" of 47 U.S.C. §337;*
- *Did not address the plain language of the prohibition against commercial use set forth in subparagraph (f)(1)(C) of 47 U.S.C. §337;*
- *Offered a reading of subparagraph (f)(1)(C) of 47 U.S.C. §337 that is inconsistent with the Commission's own prior construction of the relevant language;*
- *Treated the unqualified prohibition against commercial use set forth in subparagraph (f)(1)(C) of 47 U.S.C. §337 as if it could be addressed through licensing on a secondary basis and certain spectrum leasing arrangements;*
- *Did not focus any attention at all upon the requirements of subparagraph (f)(1)(A) of 47 U.S.C. §337, which requirements are not met by the Commission's Public Safety Broadband Proposal;*
- *Assumed the propriety of granting a license for the use of 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) to an entity which is neither a State or local government entity nor a nongovernmental organization that is authorized by a governmental entity whose primary mission is the provision of such services; and*
- *Apparently failed to focus any attention at all upon the requirements of subparagraph (f)(1)(B)(i)-(ii) of 47 U.S.C. §337, the plain meaning of which is a bar to the adoption of the Commission's Public Safety Broadband Proposal.*

The Commission graciously welcomed "comment on the issue of whether our proposal is generally consistent with Section 337," and RCC is pleased to accept the Commission's invitation to comment upon the authority of the Commission as exercised in the Ninth NPRM.

RCC respectfully submits that:

- **The spectrum proposed to be utilized in the Commission's Public Safety Broadband Proposal is 700 MHz spectrum allocated pursuant to the requirements of 47 U.S.C. §337(a)(1) which provides that "[n]ot later than January 1, 1998, the Commission shall allocate the electromagnetic spectrum between 746 megahertz and 806 megahertz, inclusive, as follows … 24 megahertz of that spectrum for public safety services …" (Emphasis supplied);**

- **"Public safety services" are defined, for the purposes of the allocation made pursuant to the requirements of 47 U.S.C. §337(a)(1), in 47 U.S.C. §337(f)(1), which is quoted above, and establishes three separate and independent tests for "public safety services" (the "Three Tests"):**

    - ***An affirmative purpose or use test****: "the sole or principal purpose of [public safety services] is to protect the safety of life, health, or property" (the "Affirmative Purpose or Use Test" of subparagraph (f)(1)(A));*

    - ***A licensee qualification test:*** *"[public safety services are services] that are provided – (i) by State or local government entities; or (ii) by nongovernmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services" (the "Licensee Qualification Test" of subparagraph (f)(1)(B)(i) and (ii)); and*

    - ***A negative purpose or use test****: "[public safety services are services] that are not made commercially available to the public by the provider" (the "Negative Purpose or Use Test" of subparagraph (f)(1)(C);*

- **Each of the Three Tests must be satisfied by the Commission's Public Safety Broadband Proposal;**

- **The Commission adopted an improperly narrow focus when it concentrated its legal analysis particularly, indeed only, on the Negative Purpose or Use Test of subparagraph (f)(1)(C);**

- **The Commission did not recognize or seek to address the challenges of meeting the Affirmative Purpose of Use Test of subparagraph (f)(1)(A) and the Licensee Qualification Test of subparagraph (f)(1)(B)(i) and (ii);**

- **By allowing the commercial use of spectrum allocated pursuant to the requirements of 47 U.S.C. §337(a)(1) only on an unconditionally preemptible, secondary basis, the Commission seeks at once:**

    - *to enable commercial services in the spectrum required by 47 U.S.C. §337(a)(1) to be used for "public safety services": and*

- *to meet the unqualified prohibition of the Negative Purpose or Use Test of subparagraph (f)(1)(C); and*

- **The Commission does not have the authority to adopt the Commission's Public Safety Broadband Proposal when that proposal violates the plain meaning of the requirements of 47 U.S.C. § 337(f)(1).**

These submissions are developed and established in Part I.A-D of the RCC Comments below, and the net effect of those submissions is that the Commission's Public Safety Broadband Proposal exceeds the authority of the Commission on multiple grounds and, for those reasons, should, RCC respectfully submits, be withdrawn or substantially revised.

A. The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(B) by proposing to license an entity which is neither a state or local government entity nor a nongovernmental organization that is authorized by a government entity whose primary mission is the provision of public safety services.

In this section, RCC addresses the Licensee Qualification Test of 47 U.S.C. §337(f)(1)(B).

1. The plain meaning of the applicable statute

The Commission's Public Safety Broadband Proposal:

- has as at its foundation the authorization of a single, national public safety broadband licensee;

- does not contemplate that such licensee will be a state or local government entity; and

- does not indicate or require that the nongovernmental national licensee is authorized by a governmental entity whose primary mission is the provision of public safety services.

These conclusions follow from the following provisions of the Ninth NPRM:

> "21. We propose that the 12 megahertz of spectrum at 767-773 MHz and 797-803 MHz, currently designated as wideband segments, be allocated for broadband use and that a single, national public safety broadband licensee be assigned this spectrum on a primary basis. The licensee also would be authorized to use all other public safety spectrum in the 700 MHz band on a secondary basis. Using this spectrum, the licensee would be authorized to provide public safety agencies voluntary access to broadband services, on a fee-for-service basis. …"
>
> "22. A central theme of our proposal is the licensing of a single, national public safety entity for the provision of public safety broadband service in lieu of the traditional practice of licensing individual state and local jurisdictions. …"
>
> "29. … we propose that selection of the national public safety broadband licensee should be based on a number of criteria, including experience with public safety

frequency coordination, not-for-profit status, and ability to directly represent all public safety interests. We also propose that no commercial interest may be held in the national license or licensee, and that no commercial interest may participate in the management of the national licensee. We seek comment on these and any other criteria that would be appropriate to ensure that the national licensee is able and qualified to adequately address the needs of all public safety users." (Emphasis supplied.)

The logical consequences of the foregoing observations and conclusions appear unavoidable.

BECAUSE:

1. THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL PROVIDES FOR THE LICENSING OF 700 MHZ SPECTRUM SUBJECT TO THE REQUIREMENTS OF 47 U.S.C. §337(A)(1) WHICH PROVIDES FOR THE USE OF SUCH SPECTRUM FOR "PUBLIC SAFETY SERVICES …" (EMPHASIS SUPPLIED.),

2. "PUBLIC SAFETY SERVICES" ARE SERVICES PROVIDED BY (I) STATE OR LOCAL GOVERNMENT ENTITIES; OR (II) NONGOVERNMENTAL ORGANIZATIONS THAT ARE AUTHORIZED BY A GOVERNMENTAL ENTITY WHOSE PRIMARY MISSION IS THE PROVISION OF SUCH SERVICES" UNDER THE LICENSEE QUALIFICATION TEST OF SUBPARAGRAPH 47 U.S.C. § 337(F)(1)(B)(I) AND (II),

3. THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL PROVIDES FOR THE AUTHORIZATION OF A SINGLE, NATIONAL PUBLIC SAFETY BROADBAND LICENSEE, AND

4. THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL DOES NOT CONTEMPLATE THAT SUCH LICENSEE WILL BE A STATE OR LOCAL GOVERNMENT ENTITY AND DOES NOT INDICATE OR REQUIRE THAT THE NONGOVERNMENTAL NATIONAL LICENSEE IS AUTHORIZED BY A GOVERNMENTAL ENTITY WHOSE PRIMARY MISSION IS THE PROVISION OF PUBLIC SAFETY SERVICES,

IT FOLLOWS THAT THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL CONFLICTS WITH THE PLAIN LANGUAGE OF 47 U.S.C. § 337(A) AND (F)(1)(B)(I) AND (II) AND, THEREFORE, EXCEEDS THE STATUTORY AUTHORITY OF THE COMMISSION.

2. Prior interpretation of the applicable statute by the Commission

The Commission's Public Safety Broadband Proposal (in its intended designation of a nongovernmental organization which does not apparently require in the Commission's view proper authorization by State or local governmental entities) is not only inconsistent with the plain meaning of 47 U.S.C. §337(f)(1)(B), but also inconsistent with the interpretation by the Commission previously given to that statutory provision.

From the time of the opening of WT Docket 96-86, the Commission has, on a number of occasions, spoken to the matter of the eligibility requirements applicable to the licensing of spectrum for public safety services. Until the Ninth NPRM, the Commission, as a matter of policy and as a matter of statutory interpretation, consistently referred to "public safety services" as services rendered by or through government entities in support of public safety duties.

By the Ninth NPRM, the Commission makes a radical, but apparently unrecognized, departure from those policy statements and statutory interpretations in the Commission's Public Safety Broadband Proposal which

- *contemplates the authorization of a single, national public safety broadband licensee without such licensee's being either:*
    - *a state or local government entity; or*
    - *a nongovernmental national licensee that is authorized by a governmental entity whose primary mission is the provision of public safety services; and*
- *does not explain or seek to rationalize that choice of licensee with either:*
    - *the requirements of 47 U.S.C. §(f)(1)(B); or*
    - *prior policy positions adopted by the Commission.*

In this section, RCC reviews and respectfully calls to the attention of the Commission those prior policy statements and statutory interpretations. That review commences with the earliest entries of the Commission in WT Docket 96-86.

> (a) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Notice of Proposed Rule Making*, 11 FCC Rcd 12460 (Released April 10, 1995)

In this notice, which is the first notice of proposed rule making issued by the Commission in the WT Docket No. 96-86, the Commission examined the definition of "public safety services" and other terms in the context of the definition thereof under consideration by the Public Safety Wireless Advisory Committee established by the Commission and the National Telecommunication and Information Administration ("PSWAC").

(For further information respecting the work of PSWAC, see: Final *Report of the Public Safety Wireless Advisory Committee to the Federal Communications Commission* (Two Volumes) (September 11, 1996).)

In the *Notice of Proposed Rule Making*, the Commission wrote:

"24. … PSWAC is considering several proposals concerning whether 'public safety' should be more strictly defined under the Commission's rules. The following definitions are being considered by PSWAC:

> Public Safety: The public's right, exercised through Federal, State, or local government as prescribed by law, to protect and preserve life, property, and natural resources and to serve the public welfare.
>
> Public Safety Services: Those services rendered by or through Federal, State, or local government entities in support of public safety duties.
>
> Public Safety Services Provider: Government and public entities or those non-governmental, private organizations which are properly authorized by appropriate governmental authority whose primary mission is providing public safety services.
>
> Public Safety Support Provider: Governmental and public entities or those non-governmental, private organizations which provide essential public services that are properly authorized by the appropriate governmental authority whose mission is to support public safety services. This support may be provided either directly to the public or in support of public safety service providers.
>
> Public Services: Those services provided by non-public safety entities that furnish, maintain, and protect the nation's basic infrastructures which are required to promote the public's safety and welfare.

"25. We tentatively conclude that we should modify our approach of defining 'public safety services' by a listing a services falling within that classification to a more precise definition of 'public safety.' Specifically, we propose to adopt PSWAC's definitions presented supra, in an effort to encompass the broadest array of the responsibilities and functions performed by public safety agencies. ..." (Emphasis supplied; and footnotes omitted.)

Thus, as early as 1996, and even before the enactment of 47 U.S.C. §337(f)(1)(B), the Commission and PSWAC were thinking in terms of defining "public safety service providers" with a limitation to governmental agencies and non-governmental agencies authorized by governmental agencies providing public safety services. In most respects the PSWAC definitions tentatively approved by the Commission anticipate the Licensee Qualification test of 47 U.S.C. §337(f)(1)(B) enacted in 1997. Just as the Commission's Public Safety Broadband Proposal

does not meet the Licensee Qualification test of 47 U.S.C. §337(f)(1)(B), that proposal would not have fit within the definitional structure considered proper by the Commission in 1995.

> (b) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Second Notice of Proposed Rule Making*, 12 FCC Rcd 17706 (Released October 24, 1997)

Following the enactment of 47 U.S.C. §337, the Commission considered the eligibility requirements for the use of the 700 MHz allocated pursuant to the Balanced Budget Act of 1997, and recognized, in substance, the Three Tests, and focused particularly upon the 47 U.S.C. §337(f)(1)(B), the provision creating the Licensee Eligibility Test.

In this connection, the Commission wrote:

> "32. Based on this general support among the commenters for these definitions we tentatively conclude that the above definitions [the PSWAC definitions referred to above], including the definition of mission critical, should be adopted. We seek further comment on these definitions and on any proposals for different definitions." (Emphasis Added.)
>
> "74. In the *Public Safety Notice,* we tentatively concluded that we should adopt formal definitions relating to public safety. In its *Final Report*, PSWAC also adopted these definitions. We do not intend to take further action on the definitions we proposed, however, since in directing the Commission to assign 24 megahertz of spectrum in the 746-806 MHz band for public safety services, Congress defined 'public safety services' to mean services:
>
> > '(A) the sole or principal purpose of which is to protect the safety of life, health, or property;
> >
> > '(B) that are provided—
> >
> > '(i) by State or local government entities; or
> >
> > '(ii) by nongovernmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services; and
> >
> > '(C) that are not made commercially available to the public by the provider.'
>
> "75. We tentatively conclude that a definition of a "public safety services provider" can be based upon the statutory definition of public safety services, and that such a definition would be helpful in developing service rules for the 746-806 MHz band. We propose to define the term as follows:

> Public Safety Service Provider: (1) A State or local government entity that provides public safety services; or (2) a non-governmental organization that is authorized to provide public safety services by a governmental entity pursuant to Section 337(f)(l)(B)(ii) of the Communications Act.
>
> "76. We note that two broad groups fall within this definition — governmental public safety services providers, and authorized non-governmental public safety services providers. We also note that many entities with public safety interests, and with which public safety service providers may from time to time need to communicate by radio, do not fall within the statutory definition. …" (Footnotes omitted; and emphasis supplied.)
>
> "120. Regarding the channels in the public safety spectrum that are not reserved for interoperability, we tentatively conclude that the Commission should limit eligibility to entities that provide public safety services, as defined for this spectrum in the Communications Act. We have proposed a definition of public safety service provider to facilitate this determination. …" (Footnotes omitted; and emphasis supplied.)
>
> "122. We also seek comment regarding whether the Commission should prescribe rules or guidelines for determining if a service meets the statutory definition of a public safety service, *i.e.*, that its sole or principal purpose is to protect the safety of life, health, or property. We seek comment as well regarding whether the Commission should prescribe substantive or procedural rules for the authorization of non-governmental organizations by governmental public safety service providers, as provided in Section 337(f)(l)(B)(ii) of the Communications Act." (Footnotes omitted; and emphasis supplied.)

Thus, in the first pronouncement of the Commission following the enactment of 47 U.S.C. §337, the Commission focused upon the matter of licensee eligibility and expressly recognized the eligibility limitations of 47 U.S.C. §337(f)(1)(B) to governmental agencies and non-governmental agencies authorized by governmental agencies providing public safety services. The Commission's Public Safety Broadband Proposal does not meet the Licensee Qualification test of 47 U.S.C. §(f)(1)(B), and that conclusion would have been obvious to the Commission in 1997, but appears to have been overlooked by the Commission in the Ninth NPRM.

> (c) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *First Report and Order and Third Notice of Proposed Rule Making*, 14 FCC Rcd 152 (Released September 29, 1998)

In this document, which includes the first substantive decision issued by the Commission in the WT Docket No. 96-86, the Commission again examined the definition of "public safety services" and adopted a "3-pronged test" (at ¶ 48) that is essentially the same as the Three Tests as used in the RCC Comments. One of the prongs of the Commission's test is "Identity of Licensee" – a test in all respects identical to the Licensee Qualification Test based upon 47

U.S.C. §337(f)(1)(B*)*. The Commission examined carefully what entities would qualify as licensees of 700 MHz spectrum and wrote as follows:

"10. Additional major conclusions of the *First Report* are as follows:

> # We adopt a three-pronged test for determining eligibility to hold a license in the 700 MHz band which follows the 1997 Budget Act definition of 'public safety services.' The three prongs for determining eligibility are: (a) purpose of use; (b) identity of licensee; and (c) noncommercial *proviso.* Based on this criteria, we conclude that entities eligible to be licensed in the 700 MHz band public safety spectrum are: (1) state and local governments and (2) non-governmental organizations (NGOs) expressly authorized by a state or local governmental entity whose mission is the oversight of or provision of services to protect the safety of life, health or property. …" (Footnotes omitted; and emphasis supplied.)

"50. *State or Local Governments and Nongovernmental Organizations.* Under the statutory definition of public safety services, the spectrum is to be used by 'State or local government entities' and 'nongovernmental organizations that are authorized by a governmental entity' whose primary mission is the provision of services, the sole or principal purpose of which is to protect the safety of life, health, or property. Based on its tentative conclusion that the 1997 Budget Act and Section 337 limited licensing to entities whose sole or principal purpose is to protect the safety of life, health, or property, the Commission proposed the following eligibility criteria in the *Second Notice:*

> Public Safety Service Provider: (1) A State or local government entity that provides public safety services; or (2) a non-governmental organization that is authorized to provide public safety services by a governmental entity pursuant to Section 337(f)(1)(B)(ii) of the Communications Act.

"51. The Commission observed that two groups fit within this definition: (1) governmental public safety services providers, and (2) nongovernmental public safety services providers authorized by governmental entities. The Commission also recognized that other entities with public safety responsibilities, with which eligible entities might need to communicate by radio, did not fall within the definition. The Commission proposed having each regional plan specify the precise types of groups, falling within its definition, that would be eligible to receive frequencies, and asked if additional rules were needed either for eligibility or for applications submitted by nongovernment organizations." (Footnotes omitted; and emphasis supplied.)

"54. First, we conclude that state or local government entities are eligible for licensing in the 700 MHz band without further showing as to eligibility. We acknowledge, in this regard, our departure from the *Second Notice's* tentative conclusion that certain state and local government entities would be ineligible for licensing under the statutory definition of public safety services. We are adopting a more inclusive interpretation today because, as suggested by many commenters, the more inclusive definition better reflects the statutory intent. In addition, among the providers of public safety services listed in the statute, state and local governments are referenced first and apart from NGOs. NGOs must also be authorized by 'a governmental entity whose *primary* mission is the provision of such services.' We believe our revised approach gives meaning to the distinction that Congress made between eligible 'State and local governments' and the narrower subset of governmental entities with a primary mission of providing public safety services from which NGOs need

authorization. We emphasize, however, that eligibility to use this spectrum is governed by Section 337 of the Act in all aspects; thus, these application processing standards are rebuttable presumptions. We also emphasize that although the statute does not require licensees to have the sole or principal purpose of providing public safety services, Section 337 mandates that this spectrum must be used for *services* whose sole or principal purpose is to protect the safety of life, health or property. (Footnotes omitted; and emphasis supplied.)

"56. Thus, we conclude, based on the definition in the 1997 Budget Act for 'public safety services,' that NGOs are eligible for licensing in the 700 MHz band when expressly authorized by a state or local governmental entity whose mission is the oversight of or provision of such services. To implement this provision of the statute, NGO applicants must submit a written statement by the state or local governmental entity that is authorizing the NGO to use 700 MHz band spectrum, and the authorizing state or local governmental entity's authorization must certify that its mission includes oversight of or responsibility for providing public safety services. An NGO Neighborhood Watch, for example, would probably seek written authority from the local police department but there are countless variations on how NGO use might present itself among states and localities nationwide. We believe that the certification from one of our licensees provides a reasonable measure of confidence that the NGO has received authorization from a governmental entity that is appropriate under the circumstances. (Footnotes omitted; and emphasis supplied.)

"58. In sum, NGOs are eligible to be licensed for spectrum in the 700 MHz band that will be used for services, the sole or principal purpose of which is to protect the safety of life, health or property so long as state or local governmental authorization, from a primary mission provider, exists. …" (Footnotes omitted; and emphasis supplied.)

Thus, in the First Report and Order and Third Notice of Proposed Rule Making in WT Docket 96-86, the Commission made plain beyond peradventure that strict licensing eligibility requirements apply to the 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) and that only State and local government entities and duly authorized nongovernmental organizations are so eligible.

(d) In the Matter of Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended (WT Docket No. 99-87), *Notice of Proposed Rule Making*, 14 FCC Rcd 5206 (Released March 25, 1999)

In this notice of proposed rule making in WT Docket No. 99-87, the Commission considered the language of 47 U.S.C. § 309(j)(2)(A)(ii) for the purpose of determining the scope of exemption from competitive bidding provided thereby for "…licenses … for public safety radio services … that … are used to protect the safety of life, health, or property …" In this respect the Commission wrote:

"28. We also tentatively conclude that our definition of "public safety radio services" should include the 24 MHz of newly allocated public safety spectrum at 764-776 MHz and 794-806 MHz (hereinafter 'the 700 MHz band'). Licensing in the 700 MHz band is restricted to a more narrow class than licensing in the public safety radio services, which does not appear to be limited to particular entities. Moreover, the 700

MHz band, like public safety radio services spectrum, must be used to protect the safety of life, health, or property, and may not be made commercially available to the public. We therefore seek comment on our tentative conclusion that spectrum in the 700 MHz band should be included within the public safety radio services spectrum that is exempt from competitive bidding. (Footnotes omitted; and emphasis supplied.)

"37. In establishing the eligibility of non-governmental organizations (NGOs) for licensing in the 700 MHz band, we concluded that NGOs must obtain written governmental approval to be eligible for licensing. However, as we observed above, Congress intended the public safety radio services exemption to be much broader than the definition of 'public safety services' eligible for licensing in the 700 MHz band and eligible to invoke Section 337. Unlike the definition of 'public safety services', which requires NGOs to be authorized by a governmental entity whose primary mission is the provision of such services to be eligible for public safety spectrum in the 700 MHz band, the public safety radio services exemption in Section 309(j)(2) is not restricted to NGOs that are 'authorized by a governmental entity.' In light of this distinction, we seek comment on whether we should establish any eligibility criteria for non-government entities to ensure that public safety radio services spectrum licensed to non-government entities is used to protect the safety of life, health, or property and not made commercially available to the public. Does the absence of this restriction on "non-government entities" in Section 309(j)(2)(A) suggest that non-government entities should not be required to obtain written governmental approval of their public safety radio service licenses, as they are required to do for licenses in the 700 MHz band?" (Footnotes omitted; and emphasis supplied.)

Thus, in the Notice of Proposed Rule Making in WT Docket 99-87, the Commission reiterated that strict licensing eligibility requirements apply to the 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) and that only State and local government entities and duly authorized nongovernmental organizations are so eligible.

(e) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Second Memorandum Opinion and Order,* 15 FCC Rcd 16844 (Released August 1, 1998)

In the *Second Memorandum Opinion and Order* in WT Docket No. 96-86, the Commission addressed again the matter of eligibility for licensing 700 MHz spectrum allocated for public safety services, adhered to its prior pronouncements in relation to licensing eligibility, and wrote as follows:

"36. In the *First Report and Order*, we adopted a three-pronged test for determining eligibility to hold a license in the 700 MHz band, which follows the definition of "public safety services" contained in Section 337(f) of the Communications Act of 1934, as amended.[4] The three prongs for determining eligibility are: (1) purpose

"[4] *See* 47 U.S.C. § 337(f).

> of use; (2) identity of licensee; and (3) compliance of noncommercial *proviso*.[5] We concluded that entities eligible to be licensed in the 700 MHz band public safety spectrum are: (1) state and local governments; and (2) non-governmental organizations (NGOs) expressly authorized by a state or local governmental entity whose mission is the oversight of or provision of services to protect the safety of life, health or property.[6] We noted that this approach was consistent with our eligibility rules for public safety spectrum outside of the 700 MHz band, where NGOs generally receive some type of approval from state or local government entities before being licensed on such spectrum.[7] Moreover, we adopted a provision that expressly conditions all 700 MHz band licenses issued to NGOs, on the requirement that the NGO continues to meet the public safety service definition of Section 337.[8]" (Emphasis supplied.)

Thus, in the Second Memorandum Opinion and Order in WT Docket No. 96-86, the Commission reiterated yet again that strict licensing eligibility requirements apply to the 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) and that only State and local government entities and duly authorized nongovernmental organizations are so eligible. From the researches of RCC, it appears that the Second Memorandum Opinion and Order in WT Docket No. 96-86 was the last time before the issuance of the Ninth NPRM that the Commission addressed those licensing eligibility requirements.

The Ninth NPRM did not overrule the long line of precedents recognizing those eligibility requirements, but rather seems to have entirely overlooked those requirements as they apply to the Commission's Public Safety Broadband Proposal. The Ninth NPRM did not discuss, address, or seek to distinguish those precedents, but rather appears to have assumed without consideration that a license to use 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) can be granted to an entity which is neither a state or local government entity nor a nongovernmental national licensee that is authorized by a governmental entity whose primary mission is the provision of public safety services. RCC respectfully suggests that the Commission's error in this respect is clear.

B. The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(C) by proposing to permit the license of the spectrum to be utilized for the national public safety broadband network to provide commercial service providers access to the licensee's assigned spectrum.

In this section, RCC addresses the Negative Purpose or Use Test of 47 U.S.C. §337(f)(1)(C).

"[5] *See First Report and Order*, 14 FCC Rcd at 178 ¶ 48.

"[6] *See id.* at 180, 188 ¶¶ 54, 56 (citing 47 U.S.C. § 337(f)(1)).

"[7] *Id.* at 182 n.143 (citing *Refarming Second Report and Order*, 12 FCC Rcd 14307, 14319 (1999) (eligibility for licensing in Public Safety Pool below 512 MHz is typically established by the governmental status of the applicant; NGOs almost always need governmental approval to be licensed)).

"[8] 47 C.F.R. § 90.523(c) (1999); *see also First Report and Order*, 14 FCC Rcd at 183 ¶ 58 n.146 (citing generally *AAT Electronics Corp.*, 93 FCC 2d 1034 (1983), and *P & R Temmer*, 93 FCC 2d 1051 (1983), both *aff'd sub. nom., P & R Temmer v. FCC*, 743 F.2d 918 (D.C. Cir. 1984)). (Footnotes renumbered.)

1. The plain meaning of the applicable statute

The Commission's Public Safety Broadband Proposal:

- provides that the single, national public safety broadband licensee would be permitted to lease 700 MHz spectrum to commercial service providers; and

- contemplates a critical role for commercial service providers in the development of the proposed national public safety broadband network.

These conclusions follow from the following provisions of the Ninth NPRM:

> "41. Under our proposal, the national public safety licensee would be permitted to lease access to commercial service providers on an unconditionally preemptible basis and enter into spectrum lease arrangements with commercial service providers in the manner of a public/private partnership for joint provision of public safety and commercial services. A key element of permitting commercial service is a strict requirement that any commercial use be unconditionally preemptible by the national public safety licensee. Specifically, commercial users would be on plain notice that their use may be, without notice, subject to immediate termination at the sole discretion of the national public safety licensee. We propose that there would be no conditions placed on the national licensee prior to making a determination to cease secondary commercial use. The national public safety licensee would have the unfettered right, which cannot be compromised or contracted away, to unilaterally determine when a secondary commercial use must be discontinued in the interests of public safety. Clearly, then, commercial users would need to ensure that, as part of any business plan, they have spectrum or communications alternatives in place to anticipate the event that their use may be preempted. We also envision, however, that our dedication to creating a nationwide, interoperable, broadband public safety network could incent accelerated development and use of advanced technologies, such as cognitive radios, by both public safety users as well as secondary commercial users. We seek comment on our proposal to permit commercial use on an unconditional preemptible basis as described above." (Emphasis supplied.)

> "43. Negotiating and managing such arrangements may be facilitated by the creation of a single nationwide public safety licensee. We envision that mutually satisfactory agreements between the national public safety licensee and the commercial users could result in like-kind exchanges, direct payments to the national public safety licensee, or some combination of both. For example, a commercial service provider could enter into an arrangement whereby it permits the use by the national public safety licensee of its communications network infrastructure in exchange for having a secondary source of spectrum to meet its communications needs. We particularly are interested in the prospects for public/private partnerships to overcome the traditional funding problems associated with creation of large-scale public safety communications networks. Specifically, we seek comment on whether opportunities exist for our nation's public safety community to leverage the expected build-out of 700 MHz communications systems by CMRS providers, as well as the existing national communications

infrastructure such as towers, backhaul communications links, and power supplies.

> "*44. Related Legal Matters*. Under the Commission's current secondary markets rules, public safety licensees may lease their spectrum usage rights only to other public safety entities and entities providing communications in support of public safety operations. The Commission determined based on the record then before it that public safety licensees should not be permitted to enter into spectrum leasing arrangements for commercial or other non-public safety operations.[9] Consistent with the reasons explained above for why we believe it would be advantageous to permit commercial use on an unconditionally interruptible basis, we propose that we should amend the Commission's spectrum leasing rules to permit the national public safety licensee to enter into spectrum leasing arrangements with commercial entities. We seek comment on this proposal. In addition, commenters may want to address whether the current standard in the general leasing context for determining what constitutes a transfer of control is appropriate for the proposed leasing arrangements." (Emphasis supplied.)

The logical consequences of the foregoing observations and conclusions appear unavoidable.

BECAUSE:

1. THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL PROVIDES FOR THE LICENSING OF 700 MHZ SPECTRUM SUBJECT TO THE REQUIREMENTS OF 47 U.S.C. §337(A)(2) WHICH PROVIDES FOR THE USE OF SUCH SPECTRUM FOR "PUBLIC SAFETY SERVICES …" (EMPHASIS SUPPLIED.),

2. "PUBLIC SAFETY SERVICES" ARE SERVICES "THAT ARE NOT MADE COMMERCIALLY AVAILABLE TO THE PUBLIC BY THE PROVIDER" UNDER THE NEGATIVE PURPOSE OR USE TEST OF SUBPARAGRAPH 47 U.S.C. § 337(F)(1)(C),

3. THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL PROVIDES FOR THE LEASING OF SUCH 700 MHZ SPECTRUM BY THE SINGLE, NATIONAL PUBLIC SAFETY BROADBAND LICENSEE TO COMMERCIAL SERVICE PROVERS,

IT FOLLOWS THAT THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL CONFLICTS WITH THE PLAIN LANGUAGE OF 47 U.S.C. § 337(A) AND (F)(1)(C) AND, THEREFORE, EXCEEDS THE STATUTORY AUTHORITY OF THE COMMISSION.

2. The effect of unconditionally preemptible access to commercial service providers

The foregoing conclusion that the Commission's Public Safety Broadband Proposal violates 47 U.S.C. §337(f)(1)(C*)* is not altered by the Commission's limiting the leasing of 700 MHz spectrum to leasing to commercial service providers on the basis of unconditionally preemptible access by such commercial service providers.

"[9] *See* Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, 19 FCC Rcd 17503, 17529-31 ¶¶ 53-56 (2004).

The plain meaning of a federal statute cannot be altered by purporting to allow prohibited commercial service by the imposition thereon of certain conditions.

47 U.S.C. §337(f)(1)(C*)*, which defines "public safety services" for the spectrum allocated by 47 U.S.C. §337(a)(1), states, in pertinent part, that: "[T]he term 'public safety services' means services – … that are not made commercially available to the public by the provider." (Emphasis supplied.)

The Commission's Public Safety Broadband Proposal requires that 47 U.S.C. §337(f)(1)(C) be read as providing that: "[T]he term 'public safety services' means services – … that are not made commercially available to the public by the provider, except for commercial services offered to the public where such services are subject to unconditional preemption by a national broadband licensee that is neither a state or local government entity nor a nongovernmental national licensee that is authorized by a governmental entity whose primary mission is the provision of public safety services."

That exception can in no proper manner be read into a statute which is framed as an unqualified prohibition and delegates no authority to the Commission to make exceptions thereto.

(The matter of the Commission's discretion and the constraints thereon is addressed in Part II.D of the RCC Comments.)

3. Prior interpretation of the applicable statute by the Commission

The Commission's Public Safety Broadband Proposal (in its intended authorization of commercial services on an unconditionally preemptible basis) is not only inconsistent with the plain meaning of 47 U.S.C. §337(f)(1)(C), but also inconsistent with the interpretation by the Commission previously given to that statutory provision.

From the time of the opening of WT Docket 96-86, the Commission has, on a number of occasions, spoken to the matter of the commercial use of eligibility requirements applicable to the licensing of spectrum for public safety services. Until the Ninth NPRM, the Commission, as a matter of policy and as a matter of statutory interpretation, consistently referred to "public safety services" as services that do not include commercial services available to the public.

By the Ninth NPRM, the Commission makes a radical, but apparently unrecognized, departure from those policy statements and statutory interpretations in the Commission's Public Safety Broadband Proposal which

- *contemplates the authorization of commercial services available to the public on spectrum set aside for public safety services; and*
- *does not effectively explain or seek to rationalize that authorization with either:*
    - *the requirements of 47 U.S.C. §(f)(1)(C); or*
    - *prior policy positions adopted by the Commission.*

In this section, RCC reviews and respectfully calls to the attention of the Commission those prior policy statements and statutory interpretations.

> (a) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *First Report and Order and Third Notice of Proposed Rule Making*, 14 FCC Rcd 152 (Released September 29, 1998)

In the *First Report and Order and Third Notice of Proposed Rule Making* in WT Docket No. 96-86, the first substantive decision issued by the Commission in that docket, the Commission, as noted above, examined 47 U.S.C. §337, considered the definition therein of "public safety services" and adopted a "3-pronged test" (at ¶ 48) that is essentially the same as the Three Tests as used in the RCC Comments. One of the prongs of the Commission's test is "Noncommercial *Proviso*" – a test in all respects identical to the Negative Purpose or Use Test based upon 47 U.S.C. §337(f)(1)(C*).* The Commission examined the Noncommercial *Proviso* carefully and wrote as follows:

> "10. Additional major conclusions of the *First Report* are as follows:
>
> # We adopt a three-pronged test for determining eligibility to hold a license in the 700 MHz band which follows the 1997 Budget Act definition of 'public safety services. The three prongs for determining eligibility are: (a) purpose of use; (b) identity of licensee; and (c) noncommercial *proviso*. Based on this criteria, we conclude that entities eligible to be licensed in the 700 MHz band public safety spectrum are: (1) state and local governments and (2) non-governmental organizations (NGOs) expressly authorized by a state or local governmental entity whose mission is the oversight of or provision of services to protect the safety of life, health or property.
>
> # In situations where a state or local governmental licensee needs to communicate by radio with a public safety service provider that is not licensed in the 700 MHz band, the licensee may permit the unlicensed provider to share the use of its system for noncommercial public safety services under Section 90.179 of the Commission's Rules." (Footnotes omitted; and emphasis supplied.)

> "71. Under the statutory definition of public safety services, the spectrum cannot be used for services to protect the safety of life, health, or property, that the provider 'makes commercially available to the public.' Accordingly, the Commission tentatively concluded in the *Second Notice* that entities not eligible for licensing on this spectrum included government or NGOs in the context of public safety services that they make commercially available to the public.

> "72. We adopt this tentative conclusion and confirm that potential applicants, whether state or local government entities or NGOs, may not claim eligibility for licensing in the 700 MHz band on the basis of public safety services that they make commercially available to the public. Because the statute defines the public safety services, and not the

entities, for which the spectrum is allocated, we also note that commercial providers of public safety services are not barred, *per se;* thus, these entities could be eligible for NGO licensing under particular circumstances — but only in connection with providing public safety services that they do not make commercially available to the public. …." (Footnotes omitted; and emphasis supplied.)

Thus, in the First Report and Order and Third Notice of Proposed Rule Making in WT Docket 96-86, the Commission made plain beyond peradventure that commercial services cannot be made available to the public utilizing the 700 MHz spectrum subject to 47 U.S.C. §337(a)(1).

> (b) In the Matter of Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended (WT Docket No. 99-87), *Report and Order and Further Notice of Proposed Rule Making,* 15 FCC Rcd 22709 (Released November 20, 2000)

In the *Report and Order and Further Notice of Proposed Rule Making* in WT Docket 99-87, the Commission interpreted the language of 47 U.S.C. § 309(j)(2)(A)(ii) for the purpose of determining the scope of exemption from competitive bidding. 47 U.S.C. § 309(j)(2)(A)(ii) exempted from competitive bidding "…licenses … for public safety radio services, that … are not made commercially available to the public …" (Emphasis supplied.) The "not made commercially available to the public" language of 47 U.S.C. § 309(j)(2)(A)(ii) is essentially identical to the language defining public safety services in 47 U.S.C. § 337(j)(1)(C) which refers to services "that are not made commercially available to the public by the provider." With respect to the 'Noncommercial Proviso" of 47 U.S.C. § 309(j)(2)(A)(ii), which is essentially the same as the Negative Purpose or Use Test of 47 U.S.C. § 337(f)(1)(C), the Commission established a two-prong test and determined that a service is not made commercially available to the public if and only if: (i) the service is not provided with the intent of receiving compensation, and (ii) the service is not available to a substantial portion of the public. In this regard, the Commission wrote:

> "*82. Noncommercial Proviso.* The public safety radio services exemption requires that the radio services not be made commercially available to the public.[10] We sought comment on how the term 'not made commercially available to the public' should be defined.[11] The Commission has interpreted similar language in implementing the congressional definition of 'commercial mobile service.' In that context, the Commission interpreted the term 'for profit,'[12] which we believe is inherent to 'commercial' use, as including any service that is provided with the intent of receiving monetary gain.[13] The Commission also found that a service is available 'to the public' if it is offered to the public without restriction as to who can receive it.[14] Because the

"[10] 47 U.S.C. § 309(j)(2)(A)(ii).

"[11] *Notice,* 14 FCC Rcd at 5230 ¶¶ 45-46, 5232-33 ¶ 51.

"[12] *See* 47 U.S.C. § 332(d)(1).

"[13] In the Matter of Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services, *Second Report and Order,* GN Docket No. 93-252, 9 FCC Rcd 1411, 1427 ¶ 43 (1994) (*CMRS Second R &O*).

"[14] *Id.* at 1439 ¶ 65.

purpose of that proceeding was to determine the meaning of commercial mobile service, as defined in Section 332(d) of the Communications Act, the Commission was required to include in its definition those services 'effectively available to a substantial portion of the public.'[15] The Commission concluded that if service is provided exclusively for internal use or is offered only to a significantly restricted class of eligible users, it is made available only to insubstantial portions of the public, and cited as an example of this, the Public Safety Radio Services.[16] We shall apply a definition of 'commercially available to the public' that is consistent with these definitions. Accordingly, for the purposes of the auction exemption under Section 309(j) of the Communications Act, we find that 'not made commercially available to the public' means that the service is not provided with the intent of receiving compensation, and is not available to a substantial portion of the public.[17]

"83. In the *Notice*, we also asked whether commercial service providers intending to provide telecommunications services to public safety entities should be able to apply for auction-exempt spectrum.[18] We agree with the commenters who argue that commercial service providers and public safety agencies have very different goals and incentives regarding spectrum use, and caution that if licenses for scarce public safety radio spectrum are assigned to commercial providers, public safety entities may find it virtually impossible to secure sufficient spectrum for their own internal needs. Also, if we expand eligibility to commercial providers declaring an intent to serve public safety entities, it would be difficult to ensure that the dominant use of this spectrum would be by entities that protect the safety of life, health, or property.[19] In addition, we conclude that permitting such use of public safety radio service spectrum would be contrary to Congress's intent. We believe that Congress created the exemption to give entities that protect the safety of life, health, or property, at a minimum, an opportunity to secure access to spectrum without having to pay for it. Assigning public safety radio service spectrum to commercial providers could conflict with this intention by compelling public safety radio service eligibles to pay for access to auction-exempt spectrum.[20] We agree with Nextel that including commercial

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"[15] *See* 47 U.S.C. § 332(d)(1)(B).

"[16] *CMRS Second R &O*, 9 FCC Rcd at 1440 ¶ 67. *See also id.* at 1509-10 ¶¶ 265-268. While we have held that provision of service to eligibles in the Business Radio Service category is essentially service to the public, this is because the class of eligibles in this pool is extremely broad. Specifically, this pool encompasses users engaged in commercial activities and clergy activities, as well as, those that operate educational, philanthropic, or ecclesiastical institutions, hospitals, clinics and medical associations. 47 C.F.R. § 90.31.

"[17] We also requested comment on whether services on which entities operate their systems under a nonprofit cost-sharing or cooperative agreement, or as a multiple licensed system, should be considered commercially available to the public. *Notice*, 14 FCC Rcd at 5230 ¶ 46. As we decided in the previous paragraph, once we have determined that a particular radio service is a public safety radio service, the spectrum will be auction-exempt even if some users operate their systems using such licensing arrangements.

"[18] *Notice*, 14 FCC Rcd at 5228 ¶ 38.

"[19] *See Notice*, 14 FCC Rcd at 5228 ¶ 38.

"[20] We recognize that there may be situations where public safety radio service eligibles find it more cost effective to contract out their commercial needs to a commercial service provider, rather than construct their own systems. We believe that leaving this choice in the hands of the public safety radio service eligibles best comports with congressional intent." (Footnotes renumbered.)

third-party providers within the exemption would enlarge it beyond all limits of reasonableness.[21] Thus, we believe that creating an opportunity for commercial operators to obtain public safety radio service spectrum would contravene congressional intent."

Thus, in the Report and Order and Further Notice of Proposed Rule Making in WT Docket 99-87, the Commission interpreted language essential identical to that of 47 U.S.C. § 337(f)(1)(C) as precluding commercial services from the use of public safety services spectrum and concluded that to do otherwise would contravene congressional intent.

(c) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Second Memorandum Opinion and Order,* 15 FCC Rcd 16844 (Released August 1, 1998)

In the *Second Memorandum Opinion and Order* in WT Docket No. 96-86, the Commission addressed again the matter of eligibility for licensing 700 MHz spectrum allocated for public safety services, adhered to its prior pronouncements in relation to licensing eligibility, and wrote as follows:

"36. In the *First Report and Order*, we adopted a three-pronged test for determining eligibility to hold a license in the 700 MHz band, which follows the definition of "public safety services" contained in Section 337(f) of the Communications Act of 1934, as amended.[22] The three prongs for determining eligibility are: (1) purpose of use; (2) identity of licensee; and (3) compliance of noncommercial *proviso*.[23]." (Emphasis supplied.)

Thus, in the Second Memorandum Opinion and Order in WT Docket No. 96-86, the Commission reiterated the exclusion of commercial services available to the public from the use of 700 MHz spectrum subject to 47 U.S.C. §337(a)(1). From the researches of RCC, it appears that the Second Memorandum Opinion and Order in WT Docket No. 96-86 was the last time before the issuance of the Ninth NPRM that the Commission addressed the "commercial proviso" or the Negative Purpose or Use test of 47 U.S.C. §337(f)(1)(C). The Ninth NPRM did not overrule the precedents recognizing that exclusion, but rather seems to have entirely overlooked those precedents as they apply to the Commission's Public Safety Broadband Proposal. The Ninth NPRM did not discuss, address, or seek to distinguish those precedents, but rather appears to have assumed that the Commission could construct conditions under which 700 MHz spectrum subject to 47 U.S.C. § 337(a)(1) could be utilized to provide commercial services to the public not withstanding the plain meaning of the language of 47 U.S.C. §337(f)(1)(C) and the interpretations thereof previously adopted by the Commission. RCC respectfully suggests that the Commission's error in this respect is clear.

[21] Nextel Reply Comments at 12-13.

"[22] *See* 47 U.S.C. § 337(f).

"[23] *See First Report and Order,* 14 FCC Rcd at 178 ¶ 48.

4. The effect of the Commission's interpretation of 47 U.S.C. §337(f)(1)(C) upon the exemption of the 24 MHz of 700 MHz spectrum from competitive bidding under 47 U.S.C. §309(j)(2)

In the very unlikely event that the "not made commercially available to the public" language of 47 U.S.C. §337(f)(1)(C) could be distinguished from the "not made commercially available to the public" language of 47 U.S.C. §309(j)(2), the Commission's own interpretation of 47 U.S.C. §309(j)(2) would seem to run the very serious risk of subjecting the 700 MHz spectrum set aside for public safety services to competitive bidding under 47 U.S.C. §309(j)(1) for failure to meet the public safety services exemption of 47 U.S.C. §309(j)(2).

C. The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(A) by failing to establish broadband services that have as their sole or principal purpose the protection of life, health or property.

In this section, RCC addresses the Affirmative Purpose or Use Test of 47 U.S.C. §337(f)(1)(A).

1. The plain meaning of the applicable statute

The Affirmative Purpose or Use Test of 47 U.S.C. §337(f)(1)(A) requires that "public safety services" have as their "sole or principal purpose …[the] protect[ion of] the safety of life, health, or property." The Affirmative Purpose or Use Test is one of the Three Tests each of which must be given separate effect, a result recognized by the Commission in its above-referred-to references to a "3-prong test" applicable to the definition of "public safety services."

When 47 U.S.C. §337(f)(1)(A) is read to give effect to 47 U.S.C. §337(f)(1)(B) and (C), 47 U.S.C. §337(f)(1)(A) clearly has the following meaning:

> Licensees eligible under 47 U.S.C. §337(f)(1)(B) must limit the services they provide using 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) to services that have as their sole or principal purpose the protection of the safety of life, health, or property and can in no event provide any services that are commercially available to the public in violation of 47 U.S.C. §337(f)(1)(C).

Therefore, 47 U.S.C. §337(f)(1)(A) further limits the scope of "public safety services," but permits licensees eligible under 47 U.S.C. §337(f)(1)(B) to provide services that do not have as their purpose the protection of the safety of life, health, or property, provided, however, that (i) the totality of the services provided by such licensees (i) have as their principal purpose the protection of the safety of life, health, or property, and (ii) none of the services are commercially available to the public.

The Commission's Public Safety Broadband Proposal does not limit the services to be provided under the proposed license to the single national licensee to services that have as their sole or principal purpose the protection of the safety of life, health, or property. The Commission's Public Safety Broadband Proposal does nothing to assure that predominant ("sole or principal") use of the 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) will be for the protection of the safety of life, health, or property because nothing in the proposal prevents the overwhelming

degree of day-to-day usage of the network to come from the customers of the proposed commercial lessee of the spectrum. (Ninth NPRM at ¶¶ 21-22, 29, 41, and 43-44)

The conclusion that the Commission's Public Safety Broadband Proposal does nothing to assure that predominant ("sole or principal") use of the 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) will be for the protection of the safety of life, health, or property is not altered by the Commission's limiting the leasing of 700 MHz spectrum to leasing to commercial service providers on the basis of unconditionally preemptible access by such commercial service providers. The proposed secondary status of the commercial usage of the system does not address what is or may be the predominant use in fact.

The Commission appears to have made the judgment that the legal "secondary status" and the priority accorded to public safety communications by the unconditionally preemptible access to which proposed commercial service providers would be subject satisfies the solely or principally for the protection of the safety of life, health, or property requirement of 47 U.S.C. §337(f)(1)(A), which is the Affirmative Purpose or Use Test.

The plain meaning of a federal statute cannot be altered by purporting to meet a statutory requirement by the imposition of a legal characterization and a condition that do not alone or together satisfy the clear intent of the statutory requirement.

The Commission's Public Safety Broadband Proposal requires that 47 U.S.C. §337(f)(1)(A) be read as providing that: "[T]he term 'public safety services' means services – … the sole or principal purpose of which is to protect the safety of life, health, or property, provided, however, that, even if the overwhelming usage of services is for commercial or other purposes not related to the protection of life, health, or property, services may still be deemed to be principally related to the protection of life, health, or property if those services for commercial or other purposes not related to the protection of life, health, or property are understood to have a secondary status and are unconditionally preemptible by the public safety services provider which hold the primary license status."

That proviso can in no proper manner be read into a statute which is framed as an unqualified requirement for the protection of life, health, or property as the sole or principal purpose of the services offered using 700 MHz spectrum subject to 47 U.S.C. §337(a)(1).

(The matter of the Commission's discretion and the constraints thereon is addressed in Part II.D of the RCC Comments.)

The logical consequences of the foregoing observations and conclusions appear unavoidable.

BECAUSE:

1. THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL PROVIDES FOR THE LICENSING OF 700 MHZ SPECTRUM SUBJECT TO THE REQUIREMENTS OF 47 U.S.C. §337(A)(2) WHICH PROVIDES FOR THE USE OF SUCH SPECTRUM FOR "PUBLIC SAFETY SERVICES …" (EMPHASIS SUPPLIED.),

2. "PUBLIC SAFETY SERVICES" ARE SERVICES THAT ARE FOR SOLE OR PRINCIPAL PURPOSE THE PROTECTION OF THE SAFETY OF LIFE, HEALTH, OR

PROPERTY UNDER THE AFFIRMATIVE PURPOSE OR USE TEST OF SUBPARAGRAPH 47 U.S.C. § 337(F)(1)(A),

3. THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL DOES NOT LIMIT THE SERVICES TO BE PROVIDED UNDER THE PROPOSED LICENSE TO THE SINGLE, NATIONAL PUBLIC SAFETY BROADBAND LICENSEE TO SERVICES THAT ARE FOR SOLE OR PRINCIPAL PURPOSE THE PROTECTION OF THE SAFETY OF LIFE, HEALTH, OR PROPERTY,

IT FOLLOWS THAT THE COMMISSION'S PUBLIC SAFETY BROADBAND PROPOSAL CONFLICTS WITH THE PLAIN LANGUAGE OF 47 U.S.C. § 337(A) AND (F)(1)(C) AND, THEREFORE, EXCEEDS THE STATUTORY AUTHORITY OF THE COMMISSION.

2. Prior interpretation of the applicable statute by the Commission

The Commission's Public Safety Broadband Proposal (in its intended authorization of services not limited to services the sole or principal purpose of which is the protection of the safety of life, health, or property) is not only inconsistent with the plain meaning of 47 U.S.C. §337(f)(1)(A), but also inconsistent with the interpretation by the Commission previously given to that provision and a closely related statutory provision.

> In the Matter of Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended (WT Docket No. 99-87), *Report and Order and Further Notice of Proposed Rule Making*, 15 FCC Rcd 22709 (Released November 20, 2000)

In the *Report and Order and Further Notice of Proposed Rule Making* in WT Docket 99-87, the Commission interpreted the language of 47 U.S.C. § 309(j)(2)(A)(ii) for the purpose of determining the scope of exemption from competitive bidding and considered the question of the dominant use of spectrum as it related to such exemption. In this regard, the Commission wrote:

> "83. In the *Notice*, we also asked whether commercial service providers intending to provide telecommunications services to public safety entities should be able to apply for auction-exempt spectrum.[24] We agree with the commenters who argue that commercial service providers and public safety agencies have very different goals and incentives regarding spectrum use, and caution that if licenses for scarce public safety radio spectrum are assigned to commercial providers, public safety entities may find it virtually impossible to secure sufficient spectrum for their own internal needs. Also, if we expand eligibility to commercial providers declaring an intent to serve public safety entities, it would be difficult to ensure that the dominant use of this spectrum would be by entities that protect the safety of life, health, or property.[25] In addition, we conclude that permitting such use of public safety radio service spectrum would be contrary to Congress's intent. We believe that Congress created the exemption to give entities that protect the safety of life, health, or property, at a minimum, an opportunity to secure

"[24] *Notice*, 14 FCC Rcd at 5228 ¶ 38.

"[25] *See Notice*, 14 FCC Rcd at 5228 ¶ 38.

access to spectrum without having to pay for it. Assigning public safety radio service spectrum to commercial providers could conflict with this intention by compelling public safety radio service eligibles to pay for access to auction-exempt spectrum.[26] We agree with Nextel that including commercial third-party providers within the exemption would enlarge it beyond all limits of reasonableness.[27] Thus, we believe that creating an opportunity for commercial operators to obtain public safety radio service spectrum would contravene congressional intent.

"84. Restrictions on Use. Another important issue is the scope of permissible uses for public safety radio services spectrum, and more specifically, whether such licensees are required to use their auction-exempt frequencies exclusively for safety-related purposes.[28] Section 337(f)(1) of the Communications Act defines a "public safety service" for determining eligibility for licensing in the 24 MHz of spectrum reallocated for public safety services, as a service the "sole or principal purpose" of which is to protect the safety of life, health or property.[29] By contrast, the auction exemption under Section 309(j)(2) contains no such restriction. The majority of commenters oppose the imposition of a requirement that spectrum be *solely* or *principally* used for public safety communications.[30] They argue that it is difficult to draw the line where public safety ends and routine business begins because day-to-day business communications often have a safety-related purpose.

"85. We conclude that because utilities, pipelines and railroads do not use their frequencies exclusively for safety-related purposes, Congress could not have intended that entities using exempt spectrum use that spectrum exclusively for such purposes. Furthermore, it would be overly burdensome to require licensees to differentiate between, and use different frequencies for, pure public safety communications and business communications, which may also serve a safety-related purpose. Accordingly, we agree that we should not, at this time**,** impose an additional restriction upon licensees in auction-exempt services to limit their use of their assigned frequencies to be exclusively for safety-related purposes. We do, however, expect that licensees making use of auction-exempt spectrum will be using that spectrum primarily to protect the safety of life, health or property. This is so because, given our principles for determining what frequencies are in public safety radio services, we anticipate that the spectrum will be used by entities with reasonably predictable (in frequency and types of occurrences, if not

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"[26] We recognize that there may be situations where public safety radio service eligibles find it more cost effective to contract out their commercial needs to a commercial service provider, rather than construct their own systems. We believe that leaving this choice in the hands of the public safety radio service eligibles best comports with congressional intent.

"[27] Nextel Reply Comments at 12-13.

"[28] *See Notice,* 14 FCC Rcd at 5224-25 ¶ 30.

"[29] 47 U.S.C. § 337(f)(1)(A).

"[30] S*ee, e.g.,* AAA Reply Comments at 4; AAR Comments at 5-7; CellNet Comments at 11; CII Comments at 11-13; ComEd Comments at 9-12; Ford Reply Comments at 6-7; Joint Commenters Comments at 8; LMCC Comments at 6-7; PCIA Comments at 5-6; UTC Comments at 16-18. *But see* Nextel Comments at 8-9 (arguing that only bands which are used exclusively or almost exclusively for public safety should be auction-exempt). *See also* ARINC Comments at 2 and 7 (supporting a principal use standard)."

in exact timing) public safety-related needs. When such needs arise, licensees should dedicate their public safety radio service spectrum to addressing the situation. We also expect users of auction-exempt spectrum to make efficient use of that spectrum for safety-related purposes, and to use other available spectrum, or commercial providers, for more general business-related purposes that are not primarily safety-related."

Accordingly, in the Report and Order and Further Notice of Proposed Rule Making in WT Docket 99-87, the Commission has recognized that the use of 700 MHz spectrum subject to 47 U.S.C. §337(a)(1) must be limited to services that have as their principal purpose the protection of the safety of life, health, or property. The Ninth NPRM did not overrule that precedent, but rather seems to have entirely overlooked that precedent as it applies to the Commission's Public Safety Broadband Proposal. The Ninth NPRM did not discuss, address, or seek to distinguish that precedent, but rather appears to have assumed that the Commission could construct the Commission's Public Safety Broadband Plan and license 700 MHz spectrum subject to 47 U.S.C. § 337(a)(1) without imposing a limitation on the services to be provided to services that have as their principal purpose the protection of the safety of life, health, or property notwithstanding the plain meaning of the language of 47 U.S.C. §337(f)(1)(A) and the interpretation thereof previously adopted by the Commission. RCC respectfully suggests that the Commission's error in this respect is clear.

D. The Commission does not have the authority to adopt the Commission's Public Safety Broadband Proposal when that proposal violates the plain meaning of the requirements of 47 U.S.C. § 337(f)(1).

In this section, RCC addresses the general powers of the Commission in relation to the management of radio spectrum and considers whether those general powers can provide authority for the Commission's Public Safety Broadband Proposal.

While it is true that the Commission has been granted broad powers by Congress, those powers do not extend to the amendment of federal legislation. Indeed, the broad grants of power to the Commission appear to be expressly subject to the condition that the exercise of such powers is "not inconsistent with law" (47 U.S.C. §303(r)) or "not inconsistent with this chapter" (47 U.S.C. §154 (i)).

As has been demonstrated above, the Commission's Public Safety Broadband Proposal appears to be not only inconsistent with the Three Tests of 47 U.S.C. §337(f)(1) on a reading of the plain meaning of the applicable statutory provision, but also inconsistent with the interpretations by the Commission of the applicable statutory provision made before the issuance of the Ninth NPRM.

Because:

- the Commission departed in the Ninth NPRM from its prior interpretations of the three applicable statutory provisions (47 U.S.C. §337(f)(1)(A)-(C)),

- the Commission's departure in the Ninth NPRM from its prior interpretations of the three applicable statutory provisions was made without the recognition, explanation, or analysis of the change in position on the part of the Commission, and

- the Commission's prior interpretations of the three applicable statutory provisions would preclude the exercise of the general discretionary powers of the Commission to legitimize the terms of the Commission's Public Safety Broadband Proposal in the face of 47 U.S.C. §337(f)(1)(A)-(C),

it seems:

- unlikely that the Commission would rely upon its general powers to rationalize the Commission's Public Safety Broadband Proposal with the requirements of 47 U.S.C. §337(f)(1)(A)-(C); and

- more likely that the Commission would either:

    - give direct expression to its implicit reinterpretation of 47 U.S.C. §337(f)(1)(A)-(C); or

    - seek direct legislative authorization for the Commission's Public Safety Broadband Proposal.

RCC respectfully submits that the Commission:

- cannot properly reinterpret 47 U.S.C. §337(f)(1)(A)-(C) in a manner such as to legitimize the Commission's Public Safety Broadband Proposal for the reasons stated in this Part II of the RCC Comments;

- should not seek direct legislative authorization for the Commission's Public Safety Broadband Proposal for the reasons stated in this Parts III and IV of the RCC Comments as limited by Chevron; and

- should consider the alternative to the Commission's Public Safety Broadband Proposal suggested in Part V of the RCC Comments.

While

- as noted, it seems to RCC unlikely that the Commission would rely upon its general powers to rationalize the Commission's Public Safety Broadband Proposal with the requirements of 47 U.S.C. §337(f)(1)(A)-(C), and

- RCC has shown that those general powers are subject to the condition that the exercise of such powers is not inconsistent with statutory provisions and that the Commission's Public Safety Broad band Proposal is inconsistent with the express requirements of 47 U.S.C. §337(f)(1)(A)-(C),

RCC will address in this Section II.D the only remaining issue, *i.e.*, whether the Commission could, under its own approach to dealing with the limitations upon its discretionary authority, utilize the Commission's general powers to rationalize the Commission's Public Safety Broadband Proposal with the requirements of 47 U.S.C. §337(f)(1)(A)-(C).

> In the Matter of Implementation of Sections 309(j) and 337 of the Communications Act of 1934 as Amended (WT Docket No. 99-87), *Memorandum Opinion and Order*, 17 FCC Rcd 7553 (Released April 18, 2002)

In the *Memorandum Opinion and Order* in WT Docket No. 99-87, the Commission interpreted the language of 47 U.S.C. § 309(j)(2)(A)(ii) for the purpose of determining the scope of exemption from competitive bidding in the context, addressed the interplay between express statutory provision and the general powers of the Commission, and, in this regard, wrote:

> "33. *Background.* Because the exemption applies to radio services, rather than individual users or specific users, the Commission addressed the question of what proportion of the users of a given band must be of the type that Congress intended to have access to auction-exempt spectrum, in order for the service to be deemed a public safety radio service. In this connection, the Commission concluded that an analysis of whether the majority of users within a particular, existing band are qualified to obtain auction-exempt spectrum will be conducted, in order to determine whether that service should be designated as auction-exempt. Hence, the 'dominant' or 'primary' use of each band will be examined.
>
> "*34. Discussion*. Petitioners contend that the 'dominant use' test is contrary to the clear intent of Congress in implementing the exemption for public safety radio services. They argue that the Commission's interpretation of the statute is based on an impermissible reading and that its construction of the section is unreasonable and thus impermissible under the *Chevron* analysis. Petitioners also state that the Commission failed to explain the basis for the dominant use test, thus the application of the test violates part of the *Chevron* analysis.
>
> "35. With respect to the statutory interpretation, the petitioners argue that we lack authority under Section 309(j) of the Communications Act to conclude that spectrum in which utilities are among those eligible to hold licenses *(e.g.*, 470-512, 800 and 900 MHz) is subject to competitive bidding because the plain language of Section 309(j) prohibits the use of competitive bidding in connection with public safety radio services, which includes services used by utilities. Moreover, the petitioners assert that the statute plainly states that 'services . .. that are used to protect the safety of life, health and property' are exempt. Thus, according to the petitioners, the Commission departed from the statute's plain meaning by interpreting the statute to mean services that are predominantly used to protect the safety of life, health and property are exempt from auction.
>
> "36. We conclude that the 'dominant use' analysis is lawful, as it is consistent with Congress's intent for the public safety radio services auction exemption. …

"37. The Commission previously stated that Section 309(j)(6)(E) provides the Commission with the discretion to take into account the dominant use of the spectrum, administrative efficiency and other related licensing issues. In the *R&O's* discussion of the dominant use analysis, the Commission posed a threshold question concerning the proportion of users in a given band that must be the type of user that Congress intended to be able to make use of exempt spectrum, in order for the service to be deemed a public safety radio service. In exploring the available options, it examined the issue of characterizing varied operations located in 'mixed use' bands in the context of other proceedings. In this connection, it concluded that precedent for examining the dominant or primary use of the band exists and that this approach promotes Congressional intent. …" (Footnotes omitted; and emphasis supplied.)

At the heart of the Commission's discussion of the interplay between express statutory provision and the general powers of the Commission is the reference to the *Chevron* analysis which refers to a certain decision of the Supreme Court which addressed the general powers of federal agencies and commissions. Set forth below is footnote 100 (which appears after first mention of Chevron in paragraph 34):

"*Chevron, U.S.A., Inc. v. NRDC, Inc.*, 467 U.S. 837 (1984)/ *see also NLRB V. United Food & Commercial Workers Union*, 484 U.S. 112, 123 (1987). Step 1 of the *Chevron* analysis requires the determination of whether Congress has directly spoken to the issue. If Congress has not directly spoken on the precise question at issue then Step 2 of the analysis requires a determination of whether the agency's answer is based on a permissible construction - one that is rational and consistent with the statute - is required. Furthermore, an agency must adequately articulate the reasons underlying its construction of a statute, so that a reviewing court can properly perform the analysis set forth in *Chevron. Acme Die Casting* v. *NLRB*, 26 F.3d 162, 166 (D.C. Cir. 1994)."

In 47 U.S.C. §337(f)(1)(A)-(C), Congress spoke directly with respect to the requirements for a service to be included within "public safety services." Accordingly, the Chevron analysis halts at Step 1 and never reaches Step 2 thereof. Therefore, no determination of whether the Commission's Public Safety Broadband Proposal is based on a permissible construction - one that is rational and consistent with the statute - is required or even permitted. In sum, the Commission cannot properly rely upon its general powers to rationalize the Commission's Public Safety Broadband Proposal with the requirements of 47 U.S.C. §337(f)(1)(A)-(C).

E. Conclusion respecting the authority of the Commission to adopt the Commission's Public Safety Broadband Proposal

RCC respectfully submits that it has in this Part II of the RCC Comments demonstrated that the Commission had exceeded its statutory authority in the Commission's Public Safety Broadband Proposal because:

- *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(B) by proposing to license an entity which is neither a state or local government entity nor a nongovernmental organization that is authorized by a government entity whose primary mission is the provision of public safety services;*

- *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(C) by proposing to permit the license of the spectrum to be utilized for the national public safety broadband network to provide commercial service providers access to the licensee's assigned spectrum to;*

- *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(A) by failing to establish broadband services that have as their sole or principal purpose the protection of life, health or property; and*

- *The Commission does not have the authority to adopt the Commission's Public Safety Broadband Proposal when that proposal violates the plain meaning of the requirements of 47 U.S.C. § 337(f)(1).*

In Part III of the RCC Comments which follows, RCC addresses:

- the views of the public safety community expressed before the issuance of the Ninth NPRM, which sets forth the Commission's Public Safety Broadband Proposal; and

- the extent to which:

    - the Commission's Public Safety Broadband Proposal represents a discontinuity in the Commission's regulatory development process respecting wideband and broadband networks; and

    - that discontinuity is supported by the analysis provided in the Ninth NPRM.

III. The Commission's Public Safety Broadband Proposal Is Inconsistent with the Overwhelming Weight of the Comments of Public Safety Agencies with respect to the Manner in which Wideband or Broadband Networks Should Be Created and Governed and Represents an Unsupported Discontinuity in Regulatory Development respecting such Networks.

In this Part III of the RCC Comments, RCC seeks to demonstrate that the Commission's Public Safety Broadband Proposal:

- Is unsupported by the great weight of public safety opinion expressed before the issuance of the Ninth NPRM; and

- Represents a radical departure from the prior thinking of the Commission with respect to the policy issues underlying the Commission's Public Safety Broadband Proposal.

Neither (i) the weight of public safety opinion expressed before the issuance of the Ninth NPRM nor (ii) the inconsistency of the Commission's Public Safety Broadband Proposal with the prior thinking of the Commission with respect to the underlying policy issues either alone or together are necessary or sufficient reasons to cause a serious reconsideration of the Ninth NPRM. However, those reasons do form a useful background to the direct discussion in Part IV of the RCC Comments of the merits of the Commission's Public Safety Broadband Proposal and the suggestions made in Part V of the RCC Comments with respect to a possible alternative framework to that set forth in the Ninth NPRM.

The utility of the discussion of public safety thinking and the prior views of the Commission as background derives from the fact that both:

- the direct discussion of the merits of the Commission's Public Safety Broadband Proposal and

- the suggestions made with respect to a possible alternative framework

are grounded in the belief that the proper basis for going forward with the development of public safety wideband and broadband networks rests on both:

- the prior thinking of the Commission with respect to the policy issues underlying the Commission's Public Safety Broadband Proposal and

- the opinions of the public safety community which are very much in accord with that prior thinking of the Commission.

A. The weight of public safety opinion

The overwhelming weight of public safety opinion expressed before the issuance of the Ninth NPRM supports the views that:

- Broadband networks can be a valuable alternative or addition to wideband networks in certain situations;

- Such networks should be developed on a regional or local basis under the general guidance of the Regional 700 MHz Planning Committees ("RPCs") established pursuant to the directions of the Commission;

- Interoperability is a critical, but not paramount requirement and needs to be subjected to needs analysis which may or may not include national interoperability based upon standardized infrastructure;

- Data interoperability is more complex than voice interoperability, and that complexity is not adequately appreciated in discussions of nationwide interoperability; and

- There must be a proper balance between general use and interoperability spectrum.

The relevant comments are referred to below:

- *Door County (Wisconsin) Sheriff's Department Communications Division* (March 10, 2005): "At earlier stages of this proceeding, the FCC correctly decided that public safety users are entitled to some discretion in how they design and operate their systems. … The FCC's active role in encouraging interoperability is welcome, particularly for voice communications where everyone will be using a common language. … Some users may decide they want to have that type of data interoperability at 700 MHz in which case there are channels designated for just that purpose. However, a rule that imposes that obligation on all 700 MHz wideband users is economically unjustified and operationally unnecessary." To that same effect, see: *Mobile County (Alabama) Public Works* (May 6, 2005); *City of Fort Smith, Arkansas* (May 17, 2005); *Olmstead County (Minnesota) Law Enforcement Center* (May 17, 2005); *City of Sturgeon Bay (Wisconsin) Fire Department* (May 18, 2005); *Texarkana Fire Department (May 20, 2005); Genesee County (Michigan) 911* (May 23, 2005); *St. Lucie County, Fort Pierce (Florida)* (May 24, 2005); *Rochester (Minnesota) Police Department* (May 24, 2005); *City of Sacramento, California, Information Technology Department* (May 27, 2005); and *Plattsmouth (Nebraska) Police Department* (May 27, 2005). See also: *Region 54 700 MHz Regional Planning Committee* (May 24, 2005); *Weston (Connecticut) Police Department* (May 25, 2005); and *State of Arizona, Department of Public Safety* (May 27, 2005); *Hamblen County (Tennessee) 911* (June 3, 2005); *Morristown (Tennessee) Police Department* (June 8, 2005); and *Morristown Hamblen (Tennessee) Emergency Medical Service* (June 9, 2005).

- *FCC Region 8 700 and 800 MHz Regional Planning Committees* (May 20, 2005): "9. A mandated interoperability mode in every 700 MHz wideband radio will increase the cost of equipment - especially if such a standard is not based upon larger market and/or existing global standards, which the SAM technology clearly does not. Furthermore, we clearly do not know enough about these types of operations to make a decision to constrain all 700 MHz wideband equipment. It is also clear that across the country

nearly all of public safety's wideband data requirements will change due to operational, geographic, demographic, and financial considerations. With such anisotropic needs, a "one size fits all" approach is ludicrous. It is far more effective to have an effective interoperability plan, one that is both tailored for and trained to, and one designed with regards to each Region's specific needs.

"10. We feel that data interoperability will never be achieved unless all pertinent applications are interoperable, and all relevant IT networks are connected as well. Starting at the applications layer and working down to an IP connection can provide complete interoperability with few steps. However, starting at the PHY and working up can only provide data interoperability once the applications themselves are standardized - requiring the entire communication protocol stack to be interoperable. An example that should be noted is the Project 25 voice standard. The common air interface defined in this suite only provides voice interoperability because the voice application (the vocoder) itself is standardized. When you target data, there are many, many interoperability applications that will need to be standardized, and at this point none of them are even defined.

"11. In closing on these issues, it is clear that in data interoperability, in the traditional sense, is not as significant a requirement as voice, and that many data interoperability needs can be accommodated via network connections, without constraining equipment to operate utilizing a standardized PHY.

"12. Region 8 also believes it is not within the purview of the Commission to set recommended practices regarding the deployment of public safety systems, and should instead leave such recommendation to other bodies such as the frequency coordinators, and the Telecommunication Industry Association (TIA). In no case should the Commission consider codifying requirements for such system deployment parameters." (At pp. 5-6) (Emphasis supplied.)

- *Missouri State Highway Patrol* (May 27, 2005): "As discussed during and since the NCC's conclusion, the lack of the user communities exposure to channel bandwidths of 50 KHz or greater (or the applications offered by such bandwidths), indicates caution should be exercised before adopting a physical standard that is required to carry all wideband data channels in the 700 MHz public safety band. The Commission's designation of eighteen (18) 50 KHz wideband data channels, as Interoperability Channels required to be able to operate and carry a defined standard, we believe, is sufficient to provide a developmental proving ground for the beginnings of wideband public safety subscriber oriented and physical layer based data interoperability development. The Commission should remain cognizant that when attempting to establish a parallel between the requirements associated with public safety voice interoperability and data interoperability in an environment absent network connectivity (unit to unit), *the user community has not had an opportunity to validate the benefits derived from applications developed from any suggested data interoperability standardization, through practice.*

"The Commission's statement that rules governing interoperability channels should be similar for wideband and narrowband mobile and portable radios indicates the Commission is unfamiliar with the completely different expectations of the public safety community regarding their voice and data applications. Voice applications, currently defined as mission critical applications, need to offer the capability of quickly managing its conventional resources with other subscribers and dispatch centers, while providing robust operational on-scene capabilities. Conversely public safety's expectations for their data applications, many being utilized and offered by commercially developed data backbones/networks utilizing such technologies as CDPD (Cellular Digital Packet Data), accompanied by a higher degree of latency than their parallel voice expectations, are acceptable *based on the necessary application, as defined by the end user*. The end users truly have a differing expectation of their voice and data needs and have not, *through practice*, been able to solidify their data expectations and subsequent interoperability needs in the same manner as they have with voice.

"While national associations and their members can represent the public safety community at a higher administrative level, often intimate technical details of the public safety communities needs are overlooked in such forums due to the high level nature of the forum and the issues it addresses. In addition national public safety forums representing the public safety user community can, at times, include a larger number of participants from outside the public safety user community, and the conclusions of those bodies can include input from non-public safety users. As a participant in such forums, often currently employed public safety personnel attending meetings representing end users are not sufficiently represented and their voices can be outnumbered by other interests. There is no substitute for what the end user, over time and practice, identifies as valid and beneficial to accomplishing their mission..

"While the Commission's recommendation to require all public safety 700 MHz narrowband voice devices a standardized interface in the 700 MHz band is valid, this is due to applications associated with the standard having been proven beneficial and effective by the user community. No such user confirmation of interoperability derived from applications has been associated with regard to wideband data in the 700 MHz public safety band. Simply put, public safety wideband data interoperability applications benefiting the first responder community, that will be enhanced by the Commission's requirement of a wideband data standard be carried by all wideband data devices, have yet to be identified.

"Even in instances when interoperability requirements are identified by the user community, time must be afforded for first responders to provide feedback on which interoperability characteristics are lacking and required in current applications, and, absent a standard, how the community experiences a reduction in interoperability. Once those conclusions have been reached a standard can be implemented to meet those identified needs. Regarding wideband data standardization, the nation's first responders have had no opportunity to provide comments and feedback on wideband data interoperability *after practice in the field.* The benefits that can be realized by the requirement of a physical standard in each wideband data device should be clearly

defined by the users, and the requirement for all devices to carry a interoperability standard before the benefits of such a standard are defined will cause the user community to suffer increased costs for little return. The Commission requiring the standard to be carried in all wideband data devices is, at this time, premature." (At pp. 6-8) (Emphasis supplied.)

- *National Public Safety Telecommunications Council* (June 5, 2005):

"The Role of the Regional Planning Committees Is Vital

"The 700 MHz public safety band supports local and state public safety agency operations. Each agency faces unique demands and operates in varying environments. The varied circumstances of these agencies cannot be reduced to a standardized format; to do so undermines effective emergency response. The Commission's decision to create the Regional Planning Committees (RPCs) recognizes that public safety services are largely committed to local authorities and that these officials need a flexibility that allow wireless communications networks to be responsive to local and state demands. The RPCs provide for the participation of local agencies within the parameters of the Commission's rules and policies to determine how best to deliver wireless communications.

"There are varying demands across agencies and regions for broadband/wideband applications. The Commission correctly notes that wideband provides greater geographic coverage, while broadband provides higher data rates. NPSTC believes it important to recognize varying requirements and capabilities, and that local and state public safety officials, working through the RPCs, are in the best position to establish how the available radio spectrum can best support local needs.

"The 700 MHz RPCs comprehend and accommodate the varying environments. The objective to shape wireless resources responsive to local demands requires technical expertise, knowledge of the needs and users, and the ability to balance how a limited resource is employed. Possessing the necessary skill, the RPCs, with the involvement of local and state agencies, are dedicated to examining the range of requirements and agencies that overwhelm the amount of spectrum available and to do so in a fair and open process. The RPCs are in a position to prepare and implement a plan and coordinate operations, which we believe underlies the most effective means to provide wideband and broadband applications in the 700 MHz band. Significantly, the RPCs seek resolution through building a consensus among users. NPSTC believes that it would be an error to pursue the contrary, to dictate through a universal rule the precise parameters of applications and technologies, broadband or wideband. It will undermine local participation and accountability in a critical resource of public safety.

"NPSTC understands there are circumstances where RPCs are constrained by lack of membership and other factors that present administrative and substantive challenges to effective use of this spectrum. These circumstances present challenges not only to agencies within a region, but to those in adjacent areas where coordination must take

place. Moreover, as our Comments recognize, the coordination of narrowband voice, wideband, and broadband operations impose a level of complexity.

"To alleviate these challenges and to promote all the opportunities this band segment presents, NPSTC commits to seeking resources to formalize its National Plan Oversight Committee (NPOC). NPOC was initially established during the Commission's Advisory Committee, the Public Safety National Coordination Committee (NCC), to provide dispute resolution and expertise to RPCs and participating agencies. To further 700 MHz broadband and wideband, as well as for effective 700 MHz administration, NPOC will provide guidance through resource materials and technical expertise to assist RPCs and participating agencies in preparing regional plans, coordinating with other regions, examining technology alternatives, and analyzing how the various applications can coexist within the band. NPOC will promote effective wideband and/or broadband use within a region that will coexist with narrowband voice operations and protect operations in adjacent regions. NPSTC commits, in cooperation with the Commission and interested parties, to pursue resources for NPOC to carry out these efforts." (At pp. 4-6) (Emphasis supplied.)

- *Police Department, City of Baton Rouge, LA* (June 14, 2005): "While we as an agency support interoperability, particularly for voice systems, we believe that it is not the only issue that is important to public safety users. The FCC is on the right track by requiring interoperability where it makes sense and creating opportunities for it when possible …. The 700 MHz wideband general use channels were allocated for a different purpose that is also important." (At pp. 1-2)

- *Missouri State Highway Patrol* (June 13, 2005): "7. In addition, the eighteen Commission designated wideband data channels should not be reserved solely to meet public safety physical layer standardization and subscriber based interoperability requirements alone. These designated interoperable channels, based on regional planning, State Interoperability Executive Committee (SIEC) input and in support of local and regional wideband data needs, should be permitted to operate in conjunction with wideband General Use channels to add capacity to the development of regionally defined wide area interoperable wideband data networks to meet multi-agency, regional community data needs. In other words, when agencies within a community are working together on a regional data network, they should not have to exclude the designated interoperable channels from those channels available to be used in such a network. Interoperability has always been defined at the *local level* and public safety's resources should be flexible enough to allow that definition enough flexibility to encompass all of the opportunities defined as necessary within a community." (Emphasis supplied.)

- *National Association of Regional Planning Committees* (October 13, 2005): "**Meeting future spectrum needs of the First Responder Community might be better addressed while considering new paradigms of use for existing public safety resources.** Commercial wireless technologies today offer users tremendous throughput and file sharing capabilities. Commercial wireless providers have developed technologies that use wider channel bandwidths than traditionally used for voice service to meet new

data needs by continually addressing their spectrum resources, aggregating channels and seeking methods of increasing spectrum efficiency while concurrently offering new products to their customers in a competitive marketplace. Their abilities to proactively address both their needs and their available resources are required in today's growing wireless communications market. Multiple voice and data technologies and schemes available in the commercial wireless market require channel bandwidths of varying size to be effective and all indications are that these new channels, wider than traditional narrowband voice/low speed data channels, and the technologies and functionality they bring will continue to offer solutions and options to commercial wireless providers in meeting the needs of their customers. Public safety should also be permitted to periodically review its spectrum needs and to evaluate whether or not their existing spectrum resources can be better utilized in a more flexible, dynamic environment.

"…Physical layer standardization as a means of achieving data interoperability is a less appropriate and less effective method than approaching data interoperability at the network and applications layers of the Open System Interface (OSI) Networking Model. We urge the Commission to acknowledge that public safety data interoperability, both narrowband and wideband, will be identified by the user community over time and after field experience allows the users to identify the applications and methodologies that best suits their needs. Many users will join regional data networks, which can provide users network level data interoperability, which they identified as an operating environment that best suits their needs and desired applications. Many data applications have yet to be defined and proven beneficial to users in the field. The NARPC feels that end users in the public safety community should have the opportunity to identify and define their data interoperability *before* mandatory standards for devices used in the band are met. (At p.2) (Emphasis supplied.)

"Public safety 700 MHz channel aggregation above 150 KHz to bandwidths utilized by commercial providers in their broadband offerings and in recent public safety trials might offer cost effective alternatives in addressing public safety's emerging broadband data requirements.

"Public safety should be permitted, when identified as necessary at the regional level and when information has been provided to the Commission that the user community affected by such aggregation has identified greater bandwidth as a mechanism to be used to meet their unique interoperability and performance criteria, to aggregate 700 MHz 50 KHz channels above 150 KHz. This aggregation can allow for new opportunities for users to identify regional needs and achieve their regions interoperability goals. Combined with the advancement of commercial broadband technologies, also utilizing channel bandwidths greater than 150 KHz, this flexibility can reap great rewards and promote the public safety spectrum as a flexible resource that they can utilize as they best determine their needs, not a resource reduced in effectiveness by regulatory constraints. Currently, the bandwidth limits on public safety's use of 700 MHz wideband channels can, to some degree, inhibit the development of data interoperability within a community as the desire to achieve greater throughput to facilitate applications will require a *lesser number of users per channel* to meet throughput requirements.

Simply put, a greater channel bandwidth can consistently meet the needs of a greater number of users on the same channel than lesser channel bandwidths. Both the inter-operable and intra-operable data needs of end users, while differing in nature and usage from their voice needs, can perhaps be better met by implementing a land mobile environment where regional planning bodies can provide a *lesser number of channels with more users accommodated per channel* with greater bandwidth available per user per channel, which will provide a greater degree of "network based" interoperable potential with more broadband data opportunities. This is in contrast to an environment where a *greater number of channels with less users accommodated per channel* exists, requiring a greater degree of physical layer commonality to achieve interoperability at potentially greater costs to public safety agencies as the equipment utilized in more narrow systems will not parallel market based, wider bandwidth cost efficient commercial equipment and interoperability hurdles between disparate systems will have to be met to achieve the same interoperable quotient as a system utilizing wider bandwidth technologies.

"The NARPC envisions that 700 MHz regional planning committees could identify the necessary bandwidth required to meet the needs of the user community within a region, paralleling the degree of cooperation provided to the region by the applicant between public safety users in the community. The highest degree of data interoperability achieved between subscribers in a specific area may be theoretically possible utilizing a single, wide bandwidth channel for all users to share regionally, but that may not be politically feasible in many regions across the country. It is more likely that some 700 MHz wideband data channel aggregation above 150 KHz will have to co-exist with other users in their community, utilizing systems with smaller channel bandwidths and associated throughput. Within each community, regional planning committees can identify areas and users where cooperative bandwidth aggregation can be beneficial to all users while overseeing the resource to ensure available spectrum for the users.

"In closing, the Commission should recognize that public safety's expectations of voice and data, as available tools used today to complete their mission, are viewed as different and distinct by the user community. The utilization of commercial networks by public safety agencies across the country today to carry agency specific Computer Aided Dispatch (CAD), Records Management System (RMS) and other data while interfacing with national databases via next generation commercial CDPD networks, is an example of how today's public safety community distinguishes between its voice and data needs and how it interprets and uses the networks required to administer both. We anticipate the public safety user community perspective on this to change over time as they become more familiar with their own data needs and begin to identify new, pertinent data applications using their current spectrum resources. As public safety begins to define its wideband data/broadband data needs through practice and experience, the Commission should acknowledge that 700 MHz wideband data channel aggregation above previously determined values is a tool that will allow regional planners to both identify and flexibly implement their future data needs using current spectrum resources. With regulatory flexibility and while utilizing the waiver process, regional planning committees can "fine

tune" the users wideband data need within its 700 MHz spectrum management responsibility. Even with the possible addition of new 700 MHz spectrum that could be allocated to public safety for applications that may lead to more effective broadband capabilities (such as the 4 MHz Nextel 700 MHz guard band allocations returned to the Commission in FCC Docket 02-55) for public safety, regulatory flexibility should be encouraged to ensure that public safety's future channel implementation can always maximize the use of its available resources." (At pp.3-4) (Emphasis supplied.)

- *National Public Safety Telecommunications Council* (February 2, 2006): "Under consideration by the Commission is whether the public safety 700 MHz channel structure should be altered to promote broadband applications. The National Public Safety Telecommunications Council (NPSTC) has continued to examine how best to pursue this goal. NPSTC submits this letter for the Commission's consideration and to assist in presenting issues for comment in any proceeding reexamining the 700 MHz band structure.

  "NPSTC has noted previously that public safety's need for broadband capability and other requirements will not be resolved by the 700 MHz band alone. The 700 MHz allocation is an important and valued commitment, yet no matter what its structure, it is not adequate to meet current or future demands. The challenge any restructuring faces is recognizing that the voice and interoperability requirements, and the guard band channels protecting these operations under the current 700 MHz structure, are critical. That significant investment has already been committed to planning how these narrowband voice channels will be used and that agencies have procured equipment to use these channels which manufacturers have commenced fulfilling reflects the importance to maintain the number of narrowband channels and their location. NPSTC's review has been conducted within this context.

  "The recent analysis and deliberations by NPSTC members and participating interests indicates areas of agreement. The first area addresses the need for the 700 MHz regional planning committees (RPCs) to be responsible for determining how a region's broadband or wideband deployments will operate within the parameters the Commission determines in the regions where they are active and have the technical competency to do the technical work. We think this is necessary because agency requirements differ across the country and change at varying times. Local officials who participate in the regional planning process are in the most effective position to determine how to meet the region's needs. Additionally, the amount of spectrum required to support broadband applications entails coordinating many agencies; the RPCs fulfill these functions well in the regions they are organized and active." (At p.1) (Emphasis supplied.)

- See also regarding empowering RPC/local flexibility in 700MHz band including wideband and broadband or support of the NPSTC position in this respect: *Region 39, 700 MHz Regional Planning Committee* (May 26, 2006); *County of Hamilton (Ohio)* (May 28, 2006); *North Carolina State Highway Patrol (Region 31)* (June 5, 2006); *APCO* (June 6, 2006); *State of California, Department of General Services, Telecommunications Division* (June 6, 2006); *Region 26, 700 MHz Regional Planning*

Committee (June 6, 2006); *International Association of Fire Chiefs* (June 6, 2006); *International Association of Chiefs of Police, Major Cities Chiefs Association, National Sheriffs' Association, and Major Counties Sheriffs' Association* (June 6, 2006); *City and County of Denver, Colorado* (June 6, 2006); *State of Hawaii, Department of Accounting and General Services* (June 6, 2006); *Region 40, 700 MHz Regional Planning Committee* (June 23, 2006); *Pinellas County (Florida) Emergency Communications* (July 3, 2006); *Region 12 (Idaho), 700 MHz Regional Planning Committee* (July 5, 2006); *Region 45 (Wisconsin), 700 MHz Regional Planning Committee* (July 5, 2006); *Region 49, Regional Planning Committee* (July 6, 2006); *APCO* (July 6, 2006); and *NPSTC* (October 30, 2006). See also: *Region 24 (Missouri), 700 MHz Regional Planning Committee* (October 23, 2006).

- *National Public Safety Telecommunications Council* (July 6, 2006): "NPSTC continues to believe that its model presents the most realistic alternative to afford local and state public safety agencies the discretion and flexibility to determine how best to use the spectrum. …

  "NPSTC proposes to combine the current reserve, general use, and interoperability wideband channels for wideband/broadband applications and place a .975 MHz guard band between voice and broadband channels. Channels of 50 kHz could be aggregated to form up to three 1.25 MHz broadband channels, or one 3.75 MHz channel. Local public safety agencies, in coordination with the Regional Planning Committee (RPC), would determine the allocation of wideband and broadband use within an area." (At pp. 1-2) (Footnotes omitted; and emphasis supplied.)

  "NPSTC analysis of the comments is premised on its underlying concern that the decision of the Commission must recognize and accommodate the range of public safety agencies throughout the United States and that these agencies have an opportunity to determine how best the spectrum should be used. The environments these agencies operate in vary widely as does the size of each agency. The result is that requirements cannot easily be categorized and translated to one universal band structure. Public safety is committed to local and state governments who are the source of its funding and responsible for its management. The variance in the size of local government is a major factor contributing to the range of agencies and requirements. How the spectrum is administered should recognize these realities if it is to be a meaningful resource in supporting these responsibilities. The other factors guiding NPSTC's analysis is the recognition of how constrained spectrum resources are and the actions that have already been taken in reliance of the current band plan. The flexibility and discretion NPSTC promotes seeks to ensure that local agencies have the opportunity to use the spectrum within the resources and capabilities of their environments." (At pp. 3-4) (Footnotes omitted; and emphasis supplied.)

In summary, it may fairly be said that the overwhelming weight of public safety opinion expressed before the issues of the Ninth NPRM is inconsistent with the essential judgments underlying the Commission's Public Safety Broadband Proposal. Such public safety opinion

includes the following observations and judgments which were apparently not taken into account or accorded great weight in the Ninth NPRM:

- *In the balance between meeting regional/local needs and the advantages of national standards, the former should be given greater weight than the latter;*

- *The imposition of national standards is not without substantial costs, and the theoretical benefits of national standards may not be nearly fully realized given the diversity of regional and local requirements;*

- *National standards in relation to data transmission are at this time a substantially illusory goal because of the greater complexity at the application level of data networks compared to voice networks;*

- *Interoperability in data transmission cannot be achieved by the enforcement of network level standards;*

- *Time and experience are required for public safety users to define their interoperability requirements in relation to data, and broad premature prescriptions respecting data interoperability are not helpful;*

- *Data interoperability is not likely to be as important as voice interoperability, and the benefits of national data interoperability, as opposed to regional/local data interoperability, are unproven and speculative;*

- *Data transmission needs are in no manner uniform across the country, and, therefore, no single solution (wideband or broadband) can properly and effectively address all of the diverse needs; and*

- *The utility of RPCs rests, in part, in their ability to facilitate in spectrum allocations the needs of regional and local public safety agencies.*

It is difficult to find public safety comments made before the release of the Ninth NPRM that are consistent with the judgments implicit therein. Public safety support of the use of the 30MHz of commercial spectrum subject to 47 U.S.C. §337(a)(2) for the development of a nationwide public safety broadband network in a commercial/public safety partnership of some kind should, in no event, be mistaken for support for the use of any of the 24 MHz of public safety spectrum subject to 47 U.S.C. §337(a)(1) for such a commercial/public safety partnership of any kind. (In this connection, see the following comments filed in RM No. 11348: *NPSTC* (November 29 and December 14, 2006).)

The public safety community jealously guards spectrum devoted to public safety services, and its interest in having commercial spectrum available for public safety use reflects a proper interest in having more options, but is not an indication of willingness to support any proposal that ties up large blocks of public safety spectrum for federally prescribed national arrangements involving commercial use of any kind or on any basis.

The expressed views of the public safety community are in stark contrast to changes in policy reflected in the Ninth NPRM when compared to the Commission's policy judgments expressed prior thereto.

The Commission's effort to give the appearance that the Commission's Public Safety Broadband Proposal was grounded in the comments of public safety agencies is set forth in the following paragraph of the Ninth NPRM:

> "9. After the close of the comment period, several parties submitted *ex parte* proposals asking the Commission to step back from its efforts to complete work on wideband interoperability and instead consider whether changes could be made that would allow use of broadband technologies in the 700 MHz public safety band. For example, the Coalition for Wideband Data Deployment requested the Commission to revisit the band plan to provide for broadband channels.[31] The National Association of Regional Planning Committees requested that the Commission permit aggregation above 150 kilohertz in the wideband spectrum to permit both wideband and broadband applications.[32] In addition, the National Public Safety Telecommunications Council (NPSTC) stated that the Commission should not alter the 700 MHz narrowband allocation, but should explore how the wideband and reserved channels could be used to promote broadband access.[33]"

The above-provided discussion of the inconsistency between the views of the public safety community expressed prior to the release of the Ninth NPRM and the policy judgments made therein seems to overwhelm the extent to which the Commission's Public Safety Broadband Proposal can in any meaningful sense claim to have been inspired by public safety commentary.

B. Discontinuity in regulatory development

In this Section III.B of the RCC Comments, RCC seeks to demonstrate the great extent to which the Ninth NPRM represents a departure from prior pronouncements of the Commission in WT Docket 96-86 and related proceedings. The fact that the Ninth NPRM represents such a departure is common ground between RCC and the Commission, which has been quite candid about the change in course represented by the Ninth NPRM. The full extent of that departure may be more contentious, but RCC respectfully submits that the departure extends to the following policy and other issues:

- The balance between regional and local control and the need for national standardization;

"[31] *See ex parte* letter from Elizabeth R. Sachs, Esq., to Marlene H. Dortch, Secretary, Federal Communications Commission at 15 (Nov. 30, 2005)." (Footnotes renumbered.)

"[32] *See ex parte* letter from William Carter to Marlene H. Dortch, Secretary, Federal Communications Commission at 3 (Oct. 13, 2005).

"[33] *See ex parte* letter from Vincent R. Stile, Chair, NPSTC, to Michael J. Wilhelm, Chief, Public Safety and Critical Infrastructure Division, Wireless Telecommunications Bureau, Federal Communications Commission, WT Docket Nos. 96-86 and 05-157 at 1 (Nov. 18, 2005)." (Footnotes renumbered.)

- The balance between general use spectrum and interoperability spectrum;
- The return to a command and control approach;
- The choice of an approach that will likely result in less efficiency;
- The reversal of position on public safety spectrum leasing; and
- The changed meaning of interoperability.

1. An acknowledged discontinuity

The Ninth NPRM almost commences with an acknowledgment of the departure represented thereby. In this respect, the Commission wrote: "4. Our proposed plan is a departure from prior public safety allocations …" (Emphasis supplied.) To the same effect, the Commission also wrote:

> "11. We believe that the time may have come for a significant departure from the typical public safety allocation model the Commission has used in the past. In prior allocations for public safety, individual public safety jurisdictions have been able to apply for and utilize individual licenses. The Commission also has permitted public safety regional planning committees to develop plans for frequency coordination on a regional basis. While this system has had significant benefits for public safety users, in terms of permitting them to deploy voice and narrowband facilities suitable for their needs, the system also has resulted in uneven build-out across the country in different bands, balkanization of spectrum between large numbers of incompatible systems, and interoperability difficulties if not inabilities. …" (Emphasis supplied.)

2. The balance between regional and local control and the need for national standardization

The effect of the Ninth NPRM is to shift the balance between regional and local control and the need for national standardization sharply in favor of national standardization. By taking eliminating wideband use of the public safety 700 MHz spectrum and by excluding the RPCs from any role in public safety broadband networks in the 700 MHz band, the Commission moved away from its long-established recognition of the value of RPCs and other regional and local institutions in assuring that spectrum allocations meet regional and local needs effectively.

That long-established recognition of the value of RPCs and other regional and local institutions in assuring that spectrum allocations meet regional and local needs effectively is reflected in the prior actions of the Commission in WT Docket 96-86. At no point prior to the release of the Ninth NPRM, did the Commission ever indicate support for:

- A single national licensee for all of the 700 MHz public safety spectrum to be made available for broadband networks;

- A situation in which the single national licensee would not be subject to any local or regional planning organization;

- The deprivation of public safety agencies of any role in the development of interoperability spectrum; and

- The Commission's declaration of national standards for data interoperability over the objections of the public safety community at large.

The prior actions of the Commission are reviewed below.

> (a) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Second Notice of Proposed Rule Making,* 12 FCC Rcd 17706 (Released October 24, 1997)

In *Second Notice of Proposed Rule Making*, the Commission considered the governance issues respecting the 700 MHz band, introduced the notion of regional planning committees in that governance process, and wrote:

> "20. With respect to the general use public safety spectrum, we believe that the communications framework established in this proceeding should call for the regional planning committees to design plans to assist the Commission in assigning licenses to meet regional needs. The regional planning committees also may assist in deciding certain technical issues relating to operations on public safety spectrum. Regarding the interoperability channels, however, we must attempt to balance the advantages of regional planning with the goal of promoting interoperability nationwide. We recognize that, in order to achieve nationwide interoperability, it will be necessary to have uniform technical standards. …" (Emphasis supplied.)

> (b) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *First Report and Order and Third Notice of Proposed Rule Making,* 14 FCC Rcd 152 (Released September 29, 1998)

In the *First Report and Order and Third Notice of Proposed Rule Making,* the Commission again addressed the balance between regional and local control and the need for national standardization and wrote as follows:

> "25. The *Second Notice* offered three alternative approaches to the task of determining an appropriate channel plan for the 700 MHz public safety band to address the communications needs of the public safety community. One approach would allow each of the RPCs complete freedom to independently decide how the 700 MHz band should be used in its region. Under a second approach, the Commission would specify nationwide

standards for the basic channelization for the band, but allow the RPCs to combine and/or split contiguous channels as needed to customize the national band plan to best meet the particular needs of their regions. The third approach would be for the Commission to adopt a nationwide band plan mandating a specific channelization that would be used uniformly by all regions. There is little support in the record for affording complete discretion over the design of the 700 MHz band plan to either the Commission or the RPCs. Instead, the comments generally support roles for both the Commission and the RPCs in establishing the band plan.

"26. In regard to the portions of the band to be used for nationwide interoperability, we believe that we should set some of broad parameters for the band plan, such as the amount of spectrum to be devoted to interoperability and location in the spectrum of interoperability channels, and also to provide for a national coordinating body to determine and advise us as to more specific technical and operational requirements. Concerning the portion of the allocation designated for general public safety use, however, we agree with the commenters that neither of the exclusive approaches offered in the *Second Notice* would be appropriate. On one hand, giving the RPCs complete discretion could lead to vastly dissimilar usage patterns, resulting in fragmentation of the equipment market and conflicts between adjoining regions. On the other hand, denying the RPCs input as to how the spectrum will be used would deprive them of the ability to optimize efficient spectrum use by tailoring the band plan to more closely fit local needs. We are concerned that a fixed national band plan with no allowance for customization would deprive public safety entities of the flexibility needed to construct systems that will best meet their communications needs. Consequently, for the general use channels, we favor a joint approach, with the Commission setting only basic nationwide allocation and channelization standards, and the RPCs handling the detailed plans for use of the channels." (Footnotes omitted; and emphasis supplied.)

(c) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Second Memorandum Opinion and Order*, 15 FCC Rcd 16844 (Released August 1, 2000)

In the *Second Memorandum Opinion and Order*, the Commission addressed again the matter of the balance between regional and local control and national standardization and wrote:

"60. We continue to believe that the regional planning approach is a reasonably proven and successful method of ensuring that 700 MHz band public safety spectrum is assigned fairly and put to its most appropriate and efficient use. As discussed in the *First Report and Order*, the RPC approach also facilitates accommodation of a wide variety of localized public safety communication requirements in different areas of the nation, and it is noteworthy that participants in 800 MHz regional planning now have up to ten years of regional spectrum-planning experience. …

"62. We clarify that RPCs are authorized to prioritize the 'highest and best' use(s) of the 700 MHz band general-use spectrum from among all eligibles as well as to examine claims of eligibility for licensing.[34] As noted above, the 700 MHz planning process is similar to the 800 MHz planning process, wherein the Commission specifically addressed the fact that it would not be possible to grant requests for assignments to everyone who was eligible to be licensed. In this connection, we clarify that the same analysis applies for 700 MHz regional planning: if there is not enough spectrum for all eligibles, the highest priority must be given to those organizations most fundamentally involved in protection of life and property.[35] Moreover, we conclude that RPCs are in the best position to determine the services of the greatest importance to public safety in their region. Thus, as was the case for 800 MHz planning, we clarify that each RPC is authorized to make these determinations for 700 MHz regional planning.[36] We clarify in this connection that RPCs must ensure that their committees are representative of all public safety entities in their regions.[37] …

"69. In the *First Report and Order*, we stated that the comments filed in response to the *Second Notice* in this proceeding 'strongly support the need for national planning' for both the spectrum in the 700 MHz band designated for interoperability purposes and the spectrum designated for general use.[38] Accordingly, we stated that we would charter an advisory committee designated as the Public Safety National Coordination Committee ("NCC") for the purpose of addressing and advising the Commission on certain public safety communications matters, and that we would do so pursuant to the Federal Advisory Committee Act ("FACA").[39] We decided to charter the NCC as a federal advisory committee after noting that our most effective activities with the public safety community have been within the formal structure of the National Public Safety Advisory Committee ("NPSPAC") and the Public Safety Wireless Advisory Committee

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"[34] In the *Second Notice*, the Commission tentatively concluded that its review of the regional plans, and the opportunity for public comment during the review process, would sufficiently ensure the adoption of fair and reasonable assignments. *Second Notice*, 12 FCC Rcd at 17,762 ¶ 121.

"[35] The Commission first set this planning standard for 800 MHz regional planning. *See National Plan Report and Order*, 3 FCC Rcd at 906.

"[36] *National Plan Report and Order*, 3 FCC Rcd at 906, 907. Where a regional plan did not accommodate all eligible entities, the Commission required an explanation of the criteria used to determine which eligibles were to be given assignments. *Id.* at 907, 911.

"[37] In the *Third Notice*, we sought comment on whether to allocate a portion of reserved spectrum for direct licensing to states. *See First Report and Order*, 14 FCC Rcd at 230-33 ¶¶ 174-80. Specifically, we sought comment on what measures would be appropriate to ensure that RPCs are open, inclusive and accountable to state licensing. *Id.* at 232 ¶ 178. If the Commission implements state licensing in response to the comments submitted to the *Third Notice*, RPCs must ensure that their committees are also representative of the participating state agencies.

"[38] *See First Report and Order*, 14 FCC Rcd at 196 ¶ 90.

"[39] *See First MO&O*, 14 FCC Rcd at 8062, 8063 ¶¶ 5-7 (1999) (citing *First Report and Order*, 14 FCC Rcd at 197 ¶ 92); *see also* Federal Advisory Committee Act, 5 U.S.C. App. 2 (1988). The Federal Advisory Committee Act is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in Appendix 2 to Title 5, Government Organization and Employees.

("PSWAC").[40] Moreover, we noted that using FACA procedures would provide formality to the NCC and ensure participation by representatives of all elements of the public safety community.[41]

"70. We described the major responsibilities of the NCC as follows: (1) formulate and submit for Commission review and approval an operational plan to achieve national interoperability that includes a shared or priority system among users of the interoperability spectrum, for both day-to-day and emergency operations, and recommendations regarding Federal users' access to the interoperability spectrum; (2) recommend interoperability technical standards for Commission review and approval; (3) provide voluntary assistance in the development of coordinated regional plans; and (4) provide general recommendations to the Commission on operational plans of the public safety community.[42] We also stated that the NCC was expected to complete its work within four years of the release date of the *First Report and Order*.[43]" (Emphasis supplied.)

(d) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Fourth Report and Order and Fifth Notice of Proposed Rule Making,* 16 FCC Rcd 2020 (Released January 17, 2001)

In *Fourth Report and Order and Fifth Notice of Proposed Rule Making*, the Commission wrote:

"6. *Background.* In the *Third Notice*, we sought comment on how best to administer the Interoperability spectrum.[44] As a general matter, we envision that the entity administering the spectrum would be responsible for developing an interoperability plan and most likely hold the license for the Interoperability spectrum under its control.[45] In this regard, we believe that some of the responsibilities involved in administering the Interoperability channels would include the creation and oversight of incident response protocols, creation of chains of command for incident response and reporting. We sought comment on whether the 700 MHz band regional planning committees (RPCs), the states, or some other entity should administer the Interoperability channels.

"7. In its report, the NCC asserted that most states have statutes or regulations governing disaster response protocols.[46] The NCC also noted that most wide-area mutual aid

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"[40] *See First Report and Order*, 14 FCC Rcd at 192 ¶ 92.

"[41] *Id.* (citing Federal Advisory Committee Act).

"[42] *See First Report and Order*, 14 FCC Rcd at 197 ¶ 92.

"[43] *Id.* at 209 ¶ 122.

"[44] *Third Notice*, 14 FCC Rcd at 233-234.

"[45] *Id*.

"[46] NCC Report at Appendix E at 1.

operations are managed and controlled by state-level organizations,[47] and that, in states where there are multiple RPCs, or where one RPC covers multiple states, RPC administration of Interoperability spectrum may be difficult.[48] For these reasons, the NCC recommended that the states and RPCs work together at the state level. Specifically, the NCC recommended that the states administer the Interoperability channels while oversight of the interoperability infrastructure would be the responsibility of the RPCs.[49] Under this framework, the states would plan the use and operation of the Interoperability channels, with the RPCs performing technical reviews of the applications. If a state were unwilling to administer the channels, however, then the NCC recommended that the RPCs would assume the states' administration responsibility as well.[50]

"8. In the *Fourth Notice*, we agreed with the NCC that administration of the Interoperability channels should occur at the state level.[51] Thus, we proposed to have the states administer the Interoperability channels. Under our proposal, applications for Interoperability spectrum would be approved by a state-level agency or organization responsible for administering state emergency communications. Under this approach, a state may be the licensee for all stations operating on the Interoperability channels or it may approve other eligible public safety entities to be licensees. We also noted that the state could delegate the approval process for Interoperability channels to another entity, such as a RPC.[52]

"9. *Discussion.* Based upon the record in this proceeding, we conclude that administration of the Interoperability channels should occur at the state level. As noted by the NCC and several commenters, state-level organizations are usually in control at large-scale events and disasters or multi-agency incidents.[53] Given the central role states currently play in managing emergency communications, we believe that the states are best suited for administering the Interoperability channels. Further, we believe that state-level control will promote safety of life and property through seamless, coordinated communications on the Interoperability channels.[54] In this connection, we note that states are usually in the best position to coordinate with Federal Government emergency agencies.

"10. The majority of the commenters who addressed the issue of administrative oversight

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"[47] *Id*.

"[48] *Id*.

"[49] *Id*. at Appendix E at 1, 4.

"[50] *Id.* at Appendix E at 1.

"[51] *Fourth Notice*, 15 FCC Rcd at 16909 ¶ 21.

"[52] *Id*.

"[53] *See* NCC Report at Appendix E at 1, New York State Technology Enterprise Corporation (NYSTEC) Comments at 10. State-level entities may include the Governor of the state or commonwealth or his or her designee (including a state agency).

"[54] See 47 U.S.C. § 151 (one of the reasons Congress created the Commission was to promote safety of life and property through the use of wire and radio communication).

agree that administration of the Interoperability channels should be performed at the state-level.[55] Thus, the state, or state-level agency, would hold licenses, resolve licensing issues and develop the statewide interoperability plan. … Thus, we conclude that the states, in the first instance, should be responsible for administration of the Interoperability channels.

"11. … Regardless which entity the state chooses to administer the Interoperability spectrum, it must notify the Commission by December 31, 2001 what entity will administer its channels. If a state fails to notify the Commission by December 31, 2001, then effective January 1, 2002, the RPC will administer the channels. We believe that the 700 MHz band RPC is the next best entity to administer the Interoperability spectrum based on the familiarity and expertise it will obtain in the context of planned operations for the General Use spectrum. …

"State Interoperability Executive Committees

"12. *Background.* In the *Fourth Notice*, we discussed the NCC's recommendation that each state should form a State Interoperability Executive Committee (SIEC) to administer the Interoperability channels.[56] Under this approach, the NCC recommends that entities desiring a license to operate on the Interoperability channels would enter into a Memorandum of Understanding (MOU) with the relevant SIEC.[57] The SIEC would be charged with enforcement of the MOU's terms,[58] with final authority vested with the Commission. The NCC recommended that, among other duties, SIECs develop interoperability operational plans. If a SIEC or another state agency elected not to oversee development of such plans for a state, then the NCC recommended that the RPC perform this function.

"13. *Discussion.* Based on the record, we agree with the NCC and the majority of the commenters and support the creation of SIECs.[59] The states best know their own capabilities and the best management of their resources. Some states already have a mechanism in place that could administer the Interoperability channels. In such cases, requiring a SIEC would be duplicative and overly burdensome for the states. Although we support the idea of creating a SIEC or another equally effective state level agency to

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"[55] Joint Commenters (American Association of State Highway and Transportation Officials (AASHTO), Forestry Conservation Communications Association, International Association of Fire Chiefs, Inc., International Association of Fish and Wildlife Agencies, International Municipal Signal Association, and the National Association of State Foresters) Comments at 8; National Public Safety Telecommunications Council (NPSTC) Comments at 4; NYSTEC Comments at 9-10; Orange County, California (Orange County) Comments at 2; David Buchanan (Buchanan) Comments at 3; State of California (California) Comments at 8; State of Florida (Florida) Comments at 3; State of Ohio (Ohio) Comments at 2.

"[56] *Fourth Notice*, 15 FCC Rcd at 16909 ¶ 23.

"[57] *See infra* para. 21-24 for a discussion of MOUs and sharing agreements.

"[58] *Fourth Notice*, 15 FCC Rcd at 16910 ¶ 23.

"[59] American Public-Safety Communications Officials-International, Inc. (APCO) Comments at 14; Illinois State Police Comments at 3; Joint Commenters Comments at 8-9; NPSTC Comments at 4; Public Safety Wireless Network (PSWN) Comments at 5-6; California Comments at 8; Florida Comments at 3.

administer the Interoperability channels, we decline to require the formation of SIECs. However, we adopt the NCC's recommendation that if a SIEC or other state agency elects not to oversee the administration of its Interoperability channels, the RPCs will assume this responsibility. We believe a voluntary framework that allows each state to determine its requirements is the best approach. As previously noted, however, the state does not have an unlimited amount of time to determine whether they will establish the SIEC, or equivalent state agency. …

"Regional Planning Committee Responsibilities

"14. *Background*. In its report, the NCC recommended that (1) the oversight of the technical parameters of the interoperability infrastructure should reside with the RPCs; (2) the RPCs should urge the states to jointly develop interoperability operational plans—and failing that—to develop such plans independently; and (3) the RPCs should request the states to hold the licenses for infrastructure—and failing that—to have the licenses held by the next highest level of government.[60] In the *Fourth Notice*, we requested comment on whether the RPCs should review the technical parameters of applications for Interoperability channels.[61] The RPCs already have a mechanism in place to review the technical parameters of applications in the 700 MHz band spectrum.[62] We also sought comment on whether we should require the RPCs to verify that the application is in accordance with the state-approved plan for Interoperability spectrum, or if there is no plan, to certify that the application has been approved by the appropriate state-level agency.[63] Under this approach, RPCs would be free to advocate that the states develop interoperability plans or, with state approval, develop a plan on their own. In addition, as discussed above, states could hold the licenses for Interoperability spectrum or approve other entities to hold licenses.[64]

"15. *Discussion.* Several commenters concur with the NCC that the RPCs should exercise some form of review over the technical parameters of applications for Interoperability channels.[65] We believe that there are benefits associated with the RPCs being responsible for reviewing the technical parameters of applications for Interoperability channels and verifying that the applications are in accordance with the state-approved interoperability plan. The RPCs have a review mechanism in place for the 700 MHz General Use spectrum. At times, this expertise puts them in a superior position to efficiently review the technical parameters for the Interoperability channels. Technical review is necessary to assure continuity between separate systems, as well as the proper

"[60] NCC Report at 12 ¶ 36.

"[61] *Fourth Notice*, 15 FCC Rcd at 16911 ¶ 30.

"[62] *Id.*

"[63] *Id*.

"[64] The licenses referred to here are for base and control stations.

"[65] City of College Station, Texas (College Station) Comments at 1; Mesa Comments at 4; Illinois State Police Comments at 4; Joint Commenters Comments at 9-10; Orange County Comments at 2; PSWN Comments at 4-5; Buchanan Comments at 3; Florida Comments at 4.

support of the administration of the Interoperability channels in the region.[66] We believe, then, that RPC review can help ensure compliance with the interoperability plan developed for the states.[67]

"16. If the state agrees to administer the Interoperability channels, it will have primary responsibility and authority over these channels, with technical review of applications being handled in the context of the frequency coordination process. For example, if a state decides it will be the sole licensee on the Interoperability channels, the state will file the necessary FCC applications for each base station, following the normal application process, including frequency coordination. If a state's interoperability plan authorizes a base station in a particular county with the license to be held by that county, the county will file the necessary FCC application. Finally, if the state plan contemplates using the Interoperability channels only for mobile to mobile communications, no applications would be filed with the Commission, because mobile units will be blanket licensed. In each of these cases, we encourage (but do not require) the state to include the pertinent RPC, with the state defining the RPC's role. We believe that setting detailed rules on the RPC's role would be inconsistent with our decision to give the states administrative responsibility. If the state declines to administer the Interoperability channels, the relevant RPC(s) will have primary responsibility and authority over these channels. Under this scenario, the RPC will develop the interoperability plan, review applications for base stations, and provide pre-coordination technical review." (Emphasis supplied.)

Clearly, the thinking of the Commission before the Ninth NPRM (and the thinking of the commenters and others who expressed their views in WT Docket 96-86) never comprehended:

- A single national licensee for all of the 700 MHz public safety spectrum to be made available for broadband networks;

- A situation in which the single national licensee would not be subject to any local or regional planning organization;

- The deprivation of public safety agencies of any role in the development of interoperability spectrum; or

- The Commission's declaration of national standards for data interoperability over the objections of the public safety community at large.

3. The balance between general use spectrum and interoperability spectrum

The Ninth NPRM represents a major shift of 700 MHz public safety spectrum from the general use and reserve categories to the interoperability category. Immediately prior to the Ninth NPRM, the Commission had dedicated:

"[66] College Station Comments at 1.

"[67] Illinois State Police Comments at 4. (Footnotes renumbered.)

- 12.5 MHz of the 24 MHz of 700 MHz public safety spectrum to general use;

- 4.8 MHz of the 12 MHz of the 700 MHz public safety spectrum set aside for wideband services to general use;

- 2.6 MHz of the 24 MHz of 700 MHz public safety spectrum to interoperability use; and

- 1.8 MHz of the 12 MHz of the 700 MHz public safety spectrum set aside for wideband services to interoperability use.

The Ninth NPRM would dedicate:

- 7.7 MHz of the 24 MHz of 700 MHz public safety spectrum to general use;

- 0.0 MHz of the 12 MHz of the 700 MHz public safety spectrum set aside for wideband services to general use;

- 12.8 MHz of the 24 MHz of 700 MHz public safety spectrum to interoperability use; and

- 12 MHz of the 12 MHz of the 700 MHz public safety spectrum set aside for wideband services to interoperability use. (Ninth NPRM, at ¶¶ 5-6)

The Ninth NPRN, therefore, provides for:

- *a decrease in the percentage of the 24 MHz of 700 MHz public safety spectrum assigned to general use from 52% to 32%;*

- *an increase in the percentage of the 24 MHz of 700 MHz public safety spectrum assigned to interoperability use from 11% to 53%;*

- *a decrease in the percentage of the 12 MHz of 700 MHz public safety spectrum assigned to wideband (broadband) general use from 40% to 0.0%; and*

- *an increase in the percentage of the 24 MHz of 700 MHz public safety spectrum assigned to wideband (broadband) interoperability use from 15% to 100%.*

RCC respectfully submits that the forgoing represents a major shift of spectrum from general use to interoperability and is a radical departure from prior Commission actions prior to the Ninth NPRM. The shift is not theoretical in its effect because the massive emphasis on interoperability comes at the expense of basic operability, i.e., the availability of spectrum for public safety operations not involving mutual aid or a national response to a disaster. Those basic operations, while perhaps not a dramatic as the major disasters, provide more day-to-day and year-round protection of life, health, and property than the events, happily rare, that call for a response to which interoperability on more than a local basis is relevant.

The first action of the Commission in relation to spectrum allocation between general and interoperability use was In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *First Report and Order and Third Notice of Proposed Rule Making,* 14 FCC Rcd 152 (Released September 29, 1998), where the Commission wrote in this respect as follows:

> "2. In this *First Report,* we establish a band plan and adopt service rules necessary to commence the licensing process in the newly-reallocated public safety spectrum at 764-776 MHz and 794-806 MHz (hereinafter "the 700 MHz band"). In addition, we designate 2.6 megahertz of spectrum in the 700 MHz band for interoperability purposes (the ability of different governmental agencies to communicate across jurisdictions and with each other). …
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> "7. Within our band plan, we designate approximately 10 percent of the 700 MHz public safety spectrum for nationwide interoperable communications. … As a result of the interaction of numerous political, technological, financial and regulatory obstacles that work to inhibit attempts to establish universal public safety interoperability, this deficiency has persisted despite many years of efforts to eradicate it. In view of this situation, we believe that it is necessary for the Commission to dedicate sufficient spectrum to nationwide interoperability, and charter a federal advisory committee (The National Coordinating Committee [NCC]) that will develop operational and technical recommendations. The operational recommendations *(e.g.*, protocols for prioritizing user access) of the NCC will, however, be subject to Commission approval. Because the NCC will be required to become American National Standards Institute-certified, the Commission will not unnecessarily disturb technical standards recommended through this open and neutral process. …
>
> "8. We also are designating a large number of channels (approximately 53 percent in the 700 MHz band) for general *(i.e.* local, regional or state) use. The RPCs will determine the specific uses of these channels, and they may begin the planning process to use these channels upon release of this *First Report.* Finally, the *Third Notice* seeks comment on proposals for use of the remainder of the band (approximately 37 percent). This 8.8 megahertz of spectrum will be designated as "reserve spectrum" during the pendency of the *Third Notice.*" (Footnotes omitted; and emphasis supplied.)
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> "18. In the *Second Notice,* the Commission proposed to dedicate a significant amount of spectrum in the 700 MHz band solely for interoperability communications. We stated that the precise amount of spectrum devoted to interoperability would reflect the record of public safety user expertise, particularly with respect to the channelization required to maximize functionality. The Commission solicited comment on whether it is necessary or advisable to allot specific interoperability channels to accommodate each discrete use. We also solicited comment on whether channels should be designated solely for interoperable voice, data, image/HSD, or video, and, if so, how many channels should be designated for each category of use.
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> "19. Nearly all commenters agree that the establishment of nationwide public safety interoperability is in the public interest.[43] The comments, however, oppose dedicating substantially more than 2.5 MHz or 10 percent of the 700 MHz band, solely for interoperability communications. Several commenters note that limiting a larger portion of

the spectrum to interoperability operations (e.g., mutual aid, day-to-day and task force) would severely curtail the availability of the 700 MHz band for routine daily operations, such as dispatch." (Footnotes omitted; and emphasis supplied.)

The allocation of spectrum between general use and interoperability reflected in *First Report and Order and Third Notice of Proposed Rule Making* of 1998 was essentially maintained through the action of the Commission in the *Eighth Notice of Proposed Rule Making* of 2006. (In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Eighth Notice of Proposed Rule Making*, 21 FCC Rcd 3668 (Released March 21, 2006).

4. The return to a command and control approach

While the Commission seems to view the Commission's Public Safety Broadband Proposal as a radical progressive development, RCC respectfully submits that the proposal is, in certain respects, retrograde and represents a return, at least in part, to a method of spectrum allocation that the Commission has elsewhere described as essentially passé. That outmoded spectrum allocation method (the command and control model) has invaded the Commission's Public Safety Broadband Proposal in certain material respects and thereby undermines the claims for the modernity and progressiveness of the Ninth NPRM. This conclusion is explained below.

The *Report of the Spectrum Efficiency Working Group* (November15, 2002) referred to three regulatory models for the allocation of spectrum by the Commission:

- The "Command-and-control" model;
- The "Exclusive use" model; and
- The "Commons" or "open access" model. (At pp. 29-30)

That report defined the command-and control model as "[t]he traditional process of spectrum management in the United States, currently used for most spectrum within the Commission's jurisdiction, allocates and assigns frequencies to limited categories of spectrum users for specific government-defined uses. Service rules for the band specify eligibility and service restrictions, power limits, build-out requirements, and other rules." (At. P. 29)

That report stated that:

- "Commenters and participants in the workshops generally criticized the costs and inefficiencies imposed on spectrum users and the public by command-and-control regulation and argued that these costs could be substantially reduced by moving to more flexible, market oriented approaches …" (At p. 30)
- The Spectrum Efficiency Working Group recommended that "the Commission advance efficiency by basing its policy on a balance of the three spectrum rights models: an

exclusive use approach, and commons approach, and (to a more limited degree) a command-and-control approach." (Emphasis supplied.) (At. P. 31)

- "We further recommend that the Commission fundamentally alter the existing balance among these models – which is dominated by legacy Command-and-control regulation – by expanding the use of both exclusive use and commons models throughout the spectrum, and limiting the use of the command-and-control model to those instances where there are compelling public policy reasons." (Emphasis supplied.) (At p. 31)

The above-stated conclusions of the Spectrum efficiency working Group of the Commission's Spectrum Policy Task Force were reflected in the *Spectrum Policy Task Force Report, ET Docket No. 02-135* (November 2002). (At pp. 5-6 and 35-37) See also: *Report of Spectrum Rights and Responsibilities Working Group* (November 15, 2002) (At pp. 3-10)

In certain respects, the Commission's Public Safety Broadband Proposal is more consistent with the command-and-control model than the exclusive use model, which the Report of the Spectrum Efficiency Working Group defined as: "A licensing model in which a licensee has exclusive and transferable rights to the use of specified spectrum within a defined geographic area, with flexible use rights that are governed by technical rules to protect spectrum users against interference." (At p.29)

The following statements of the Commission in the Ninth NPRM clearly have the ring of rigidity and the prescriptive decretal air of the command and control model rather than the tone of flexibility of the exclusive use model:

> "3. … we propose a centralized and national approach to maximize public safety access to interoperable, broadband spectrum in the 700 MHz band, and, at the same time, foster and promote the development and deployment of advanced broadband applications, related radio technologies, and a modern, IP-based system architecture." (Emphasis supplied.)
>
> "19. We propose that the 12 megahertz of spectrum at 767-773 MHz and 797-803 MHz, currently designated as wideband segments, be allocated for broadband use and that a single, national public safety broadband licensee be assigned this spectrum on a primary basis. The licensee also would be authorized to use all other public safety spectrum in the 700 MHz band on a secondary basis. Using this spectrum, the licensee would be authorized to provide public safety agencies voluntary access to broadband services, on a fee-for-service basis. The licensee also would be permitted to provide unconditionally preemptible access to this spectrum to commercial entities through leases or in the form of public/private partnerships. The national public safety broadband licensee may enter into arrangements with commercial service providers for accessing or sharing their communications systems infrastructure in order to create the nationwide, interoperable, broadband public safety communications network. We would leave significant discretion to the national licensee to carry out its responsibilities. We believe, however, that it would be necessary for the Commission to establish certain baseline performance requirements, including those for broadband, interoperability, build-out of

national coverage, unconditional preemption of commercial use, and disaster restoration capability. We seek comment broadly on our proposed approach or any alternatives, as well as any potential impact on existing operations or planning activities by public safety in this spectrum."

"20. A central theme of our proposal is the licensing of a single, national public safety entity for the provision of public safety broadband service in lieu of the traditional practice of licensing individual state and local jurisdictions. We believe that centralizing the licensee responsibilities into a single entity representative of the public safety community could best serve the objectives discussed above. …" (Emphasis supplied.)

"27. We envision that the national licensee would have many important responsibilities, including the design and implementation, build-out, and maintenance of the nationwide network, coordination of use by eligible local, state, and federal public safety agencies, and leasing excess capacity on an unconditional, preemptible basis to commercial users, including the discretion to terminate such commercial use when the interest of public safety so demands. As a consequence, we propose that selection of the national public safety broadband licensee should be based on a number of criteria, including experience with public safety frequency coordination, not-for-profit status, and ability to directly represent all public safety interests. We also propose that no commercial interest may be held in the national license or licensee, and that no commercial interest may participate in the management of the national licensee. We seek comment on these and any other criteria that would be appropriate to ensure that the national licensee is able and qualified to adequately address the needs of all public safety users." (Emphasis supplied.)

"*32. System Architecture*. Modern IP-based system architecture has many advantages in terms of flexibility and cost. It could enable multiple technologies – narrowband terrestrial, broadband terrestrial and satellite – to be integrated. This could permit the joint use of a common infrastructure by commercial and public safety users, with priority for public safety users. It could provide great flexibility in combining multiple services, *e.g.*, voice, data and video, into the same device. It could allow the public safety system to benefit from economies of scale in the production of commercial devices.[68] On the other hand, there may be issues as to whether IP technology can provide the required quality-of-service guarantees for certain public safety applications that must operate with a high degree of reliability in life-threatening situations. Should the national public safety licensee have the discretion to choose the best system architecture, or should the Commission establish system architecture requirements, and, if so, what should they be?

"*33. Nationwide Interoperability*. Under our proposal, the national licensee would be required to construct a network that would provide interoperability for all devices operating on the national broadband public safety network. In addition, should

"[68] See Philip J. Weiser, "Clearing the Air: Convergence and the Safety Enterprise," *The Aspen Institute, Communications and Society Program* (2006), p. 6, http://www.aspeninstitute.org/atf/cf/%7bDEB6F227-659B-4EC8-8F84-8DF23CA704F5%7d/C&S%20FINALAIRSREP06.PDF." (Footnotes renumbered.)

we require that all public safety systems have the ability to interoperate with the national broadband system at a network level using IP-based methods? Should we require the national broadband licensee to provide any degree of physical layer (radio) interoperability with certain legacy systems, such as through the use of software defined radio or other technologies? What would be the cost and benefits of such additional interoperability requirements? We seek comment on these and other interoperability requirements." (Emphasis supplied.)

"*35. Network Build-Out*. We seek comment on appropriate timing and scope of build-out requirements for the national broadband public safety system. In order to expedite the availability of ubiquitous coverage, we believe that the national licensee should issue requests for proposals for the construction of the national network by third parties. …" (Emphasis supplied.)

"*36. Network Resiliency and Disaster Restoration.* Public safety communications should be robust against destruction of terrestrial infrastructure. This may require that the national public safety network proposed herein incorporate one or more of the following: IP-based routing, a satellite component (via arrangements with satellite providers), and temporary base stations (on the ground and in aircraft) that can be deployed in emergencies. We seek comment on what requirements, if any, the Commission should establish for network resiliency and disaster restoration and how any such requirements should be specified. Should some robustness requirements be imposed on all public safety systems, not just the national public safety system?" (Emphasis supplied.)

The Commission's Public Safety Broadband Proposal is replete with prescribed requirements and hardly can be characterized as flexible. In this sense, that proposal is a departure from prior thinking of the Commission in relation to preferred spectrum allocation models.

5. The choice of an approach that will likely result in less efficiency

The Commission has expended substantial resources in order to understand and promote efficiency in relation to spectrum use and has declared that the efficient use of spectrum is one of the objectives of the Ninth NPRM and the Commission's Public Safety Broadband Proposal. (Ninth NPRM at ¶16)

RCC respectfully submits that it is, however, not entirely clear how the Commission's Public Safety Broadband Proposal promotes spectrum efficiency, and, it is clear, in certain respects, that the Ninth NPRM is not, in substance, wholly consistent with the Commission's earlier work on spectrum efficiency.

The *Spectrum Policy Task Force Report, ET Docket No. 02-135* (November 2002) identified three aspects of "efficiency" applicable to spectrum management:

- "Spectrum efficiency" which occurs "when the maximum amount of information is transmitted within the least spectrum";

- "Technical efficiency" which occurs "when inputs, such as spectrum, equipment, capital, and labor, are deployed in a manner that generates the most output for the least cost"; and

- "Economic efficiency" which occurs "when all inputs are deployed in a manner that generates the most value for customers." (At p. 21) See also: *Report of the Spectrum Efficiency Working Group* (November15, 2002) (At pp. 4-9)

The Spectrum Rights and Responsibilities Working Group "concluded that the Commission can best promote economic efficiency by providing spectrum users with flexibility of spectrum use and ease of transferability in order to allow maximization of the value of the services provided. Flexibility provides incentives for economically efficient use and discourages economically inefficient use by ensuring that spectrum users will face the opportunity cost of their spectrum use. And efficient secondary market mechanisms are the best means of achieving this goal. The Task Force recognized that there may be situations where the Commission finds it necessary to promote spectrum or technical efficiency (as opposed to economic efficiency) in order to promote particular public interest goals." *Spectrum Policy Task Force Report, ET Docket No. 02-135* (November 2002). (At p. 21) See also: *Report of Spectrum Rights and Responsibilities Working Group* (November 15, 2002) (At pp. 21-24).

The *Spectrum Policy Task Force Report, ET Docket No. 02-135* (November 2002) also recognized the efficiency inherent in grouping "technically compatible systems and devices in close spectrum proximity. … [A] 'good neighbor' policy would group future systems or devices by specifying comparable maximum levels of power and compatible interference protection levels." (At p. 22) See also: *Report of the Spectrum Efficiency Working Group* (November15, 2002) (At p. 36).

In certain respects, the Commission's Public Safety Broadband Proposal is likely to be a less efficient use of spectrum than the approach which the Commission abandoned to adopt that proposal. This conclusion follows from:

- *The prescriptive and inflexible requirements imposed in relation to the Commission's Public Safety Broadband Proposal;*

- *The unproven assumption utilized by the Commission as a basis for action that broadband services are everywhere required and that there are no geographic areas where wideband services would not be more than adequate;*

- *The far greater costs associated with providing coverage for broadband as compared to the costs of providing coverage for wideband;*

- *The unexamined assumption, which is contrary to fact, that national broadband interoperability at the physical level is sufficient to assure effective applications level interoperability;*

- *The failure of the Commission's Public Safety Broadband Proposal to recognize that data networks (whether wideband or broadband) developed at the local or regional level*

provide far greater assurance of applications level interoperability than a national broadband network imposed from above; and

- *The failure in the Ninth NPRM to recognize that the RPCs or other local and regional institutions could with proper authorization serve to allocate wideband and broadband spectrum in a manner such as to maximize true spectrum efficiency; this result could be achieved by examining, combining, consolidating, grouping, and coordinating proposals for the implementation of wideband or broadband networks by considering the effects of those proposals upon spectrum efficiency and upon one another (good neighbor policies) and by thus playing a role as close as possible to a market designed for the efficient allocation of spectrum.*

For these reasons, RCC respectfully submits that the Commission's Public Safety Broadband Proposal is, in yet another respect, a radical, but not obviously proper, departure from the earlier thinking of the Commission in relation to the underlying policy issues.

6. The reversal of position on public safety spectrum leasing

In the Ninth NPRM, the Commission made clear its reversal of position on spectrum leasing by public safety service providers. The relevant paragraphs of the Ninth NPRM are as follows:

> "*44. Related Legal Matters*. Under the Commission's current secondary markets rules, public safety licensees may lease their spectrum usage rights only to other public safety entities and entities providing communications in support of public safety operations. The Commission determined based on the record then before it that public safety licensees should not be permitted to enter into spectrum leasing arrangements for commercial or other non-public safety operations.[69] Consistent with the reasons explained above for why we believe it would be advantageous to permit commercial use on an unconditionally interruptible basis, we propose that we should amend the Commission's spectrum leasing rules to permit the national public safety licensee to enter into spectrum leasing arrangements with commercial entities. We seek comment on this proposal. In addition, commenters may want to address whether the current standard in the general leasing context for determining what constitutes a transfer of control is appropriate for the proposed leasing arrangements."
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> "45. When adopting the spectrum leasing rules applicable to public safety licensees, the Commission contemplated the potential application of smart or opportunistic technological developments, such as cognitive radios, that could enable "interruptible" spectrum leasing arrangements.[70] Indeed, in a subsequent *Report and Order*, the Commission described technical methods that a cognitive radio could use to

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"[69] *See* Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, WT Docket No. 00-230, *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, 19 FCC Rcd 17503, 17529-31 ¶¶ 53-56 (2004). " (Footnote renumbered.)

"[70] *Id*. at 17531 ¶ 56; *see also id*. at 17546-53 ¶¶ 86-99.

enable interruptible secondary use of licensed spectrum by other parties.[71] We seek comment on the potential use of technologies, such as cognitive radios, in connection with our proposal to enable the national public safety licensee to lease spectrum for commercial use." (Emphasis supplied.)

This reversal of position is, RCC respectfully submits, troubling for several reasons:

- The change in view ignores the prohibition thereof established above in the analysis of 47 U.S.C. §337(a)(1) and (f)(1)(A) and (C);

- The change in view ignores its possible consequences to the exemption from competitive bidding enjoyed by spectrum dedicated to public safety services as established above in the discussion of 47 U.S.C. §339(j)(2);

- The change in view does not address in any manner the reasons that lead the Commission to its prior position on spectrum leasing by public safety service providers; and

- The change in view is proposed to be given present effect, in part, upon the basis of the potential effects of future technologies.

The first two reasons for concern are adequately addressed elsewhere in the RCC Comments, and, therefore, attention will be given here only to the last two of the above-stated reasons for concern.

With respect to leasing of spectrum by public safety services providers, RCC is, of course, familiar with the actions of the Commission in relation to spectrum leasing in WT Docket No. 00230. In this regard, see: In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Notice of Proposed Rulemaking* (WT Docket No. 00-230), 15 FCC Rcd 24203 (Released November 27, 2000) ("At this time we are … excluding Public Safety Radio … because of considerations unique to these particular services." [¶ 13, footnote 19]); *Principles for Promoting the Efficient Use of Spectrum by Encouraging the Development of Secondary Markets*, *Policy Statement*, 15 FCC Rcd 24178 (Released December 1, 200); In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Report and Order and Further Notice of Proposed Rule Making* (WT Docket No. 00-230), 18 FCC Rcd 24817 (Released October 6, 2003) (seeking comment on whether to extend "spectrum leasing policies and procedures to services not within the scope of the Report and Order, including public safety services …" [¶ 19, bullet 3]; "We seek comments here on whether to permit licensees in the Public Safety Radio Pool to lease access rights to their licensed spectrum. Initially, we note that any such leasing would be a voluntary transaction by a public safety licensee, and not the use of this spectrum by third parties without consent by the licensee. We also recognize that public safety licensees require near-instant access to their full spectrum capacity, when demand surges

"[71] *See* Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies, ET Docket No. 03-108, *Report and Order*, 20 FCC Rcd 5486, 5514-16 ¶¶ 80-90 (2005)." (Footnotes renumbered.)

due to emergencies. Using traditional technology, the only way to guarantee such access has been full-time dedicated spectrum. New technologies, however, may allow both ultra-reliable near-instant access by public safety licensees and use by other licensees at times of low public demand." [¶ 291; footnotes omitted, and emphasis supplied]); and In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking* (WT Docket No. 00-230), 19 FCC Rcd 17503 (Released September 2, 2004) (cited in the Ninth NPRM).

If focus is placed upon the latest of the Commission's actions in WT Docket No. 00-230 (the *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking* of September 2, 2004), it is plain that;

- The Commission's analysis therein of spectrum leasing by public safety licensees has a rationale and certain limitations that are not addressed or overcome by the Commission in the Ninth NPRM; and

- There is a critical technology issue in relation to spectrum leasing by public safety licensees that is critical to the practicality thereof, i.e., the need for ultra-reliable near-instant access by the national licensee to all of its spectrum as recognized initially in the *Report and Order and Further Notice of Proposed Rule Making* of October 6, 2003.

In the *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking*, the Commission permitted the leasing of spectrum by public safety services providers only to other public safety services providers (and not to commercial services providers), recognized that to do otherwise would create certain statutory problems, reaffirmed the linkage between leasing and an effective methodology to provide ultra-reliable near-instant access by the national licensee to all of its spectrum, and wrote:

> "53. *Public Safety Services.* With regard to the Public Safety Services in Part 90, we will permit public safety licensees with exclusive use rights[72] to lease their spectrum usage rights to other public safety entities and entities providing communications in support of public safety operations.[73] We, however, decline at this time to permit public safety licensees to enter into spectrum leasing arrangements for commercial or other non-public safety operations.
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> "54. We will permit public safety licensees in these services to enter into spectrum leasing arrangements with other public safety entities and entities that provide communications in support of public safety operations, consistent with the policies we adopted last year in the *4.9 GHz Report and Order*. In that order, we established new licensing and service rules for the 4940-4990 MHz band (4.9 GHz band) that were

[72] To the extent that licensees are sharing spectrum, they are not permitted to enter into spectrum leasing arrangements with other entities.

[73] In this section, we are only discussing public safety licensees authorized under Part 90 rules. *See* 47 C.F.R. Part 90 subpart B; § 90.311(a)(1)(i). We already permit Part 101 licensees (including public safety licensees) to lease spectrum under the rules adopted in the *Report and Order*. *See Report and Order* at ¶ 84 & n.181.

designed to increase the effectiveness of public safety communications, foster interoperability, and further ongoing and future homeland security initiatives within the 4.9 GHz band.[74] We believed that these objectives would be best accomplished by basing the eligibility criteria for being licensed in the 4.9 GHz band on the "public safety services" definition set forth in section 90.523 of our rules,[75] which the Commission adopted in 1998 to implement Section 337(f)(1) of the Communications Act.[76] Under this definition, "public safety services" are services:

(A) the sole or principle purpose of which is to protect the safety of life, health, or property;

(B) that are provided – (i) by State or local government entities; or (ii) by nongovernmental organizations that are authorized by a government entity whose primary mission is the provision of such services; and

(C) that are not made commercially available to the public.[77]

Under this standard, nongovernmental organizations are eligible if they obtain written approval from a state or local government entity whose mission is the oversight or provision of public safety services.[78] Though we noted that utilities and pipelines were examples of potential licensees, we did not attempt to delineate every type of nongovernmental organization that would be eligible to be licensed in the 4.9 GHz band; rather, we determined that traditional public safety entities are better poised to be most knowledgeable about what other users and/or uses would be supportive of public safety operations.[79] We did, however, expressly require that use of the 4.9 GHz band by entities other than traditional public safety entities be in support of public safety, and prohibited communications with no nexus to the safety of life, health or property.[80]

"55. For the same reasons that we decided to permit non-traditional public safety entities to be licensed in the 4.9 GHz band for use in support of public safety operations, we now conclude that it is appropriate to permit public safety licensees to lease spectrum for such use. In addition, we believe that our decision herein to permit spectrum leasing among public safety entities achieves an appropriate balance between commenters that supported extension of our spectrum leasing policies to these services and those that expressed concern about possible abuses.[81] Further, spectrum would not be used by

[74] *See* The 4.9 GHz Band Transferred from Federal Government Use, *Memorandum Opinion and Order*, 18 FCC Rcd 9152, 9158 ¶ 16 (2003) (*4.9 GHz Report and Order*).

[75] *Id.* at 9158-59 ¶ 16 (citing 47 C.F.R. § 90.523); *see also* 47 C.F.R. § 90.1203(a).

[76] 47 U.S.C. § 337(f)(1).

[77] 47 C.F.R. § 90.523.

[78] *4.9 GHz Report and Order*, 18 FCC Rcd at 9159 ¶ 17 (citing 47 C.F.R. § 90.523(a)).

[79] *Id.* at 9159-60 ¶¶ 17-19.

[80] *Id.* at 9162-63 ¶¶ 22-23.

[81] As noted above, two commenters supported providing public safety licensees additional flexibility to lease spectrum to other entities. *See* ITA Reply Comments at 9-10 (support for permitting public safety entities to lease

commercial entities to the potential detriment of public safety operations. We believe that allowing public safety licensees to lease spectrum for use in support of public safety operations will help maximize the efficient use of spectrum among public safety entities by providing them incentives to lease any excess spectrum capacity, thus diminishing the likelihood that public safety entities will warehouse spectrum.[82]

"56. Our decision at this time not to permit public safety licensees in our Public Safety Services to lease spectrum to entities other than public safety entities, or entities providing communications in support of public safety operations, is based on the record before us and reflects several concerns. Most commenters strongly objected to allowing public safety licensees to enter into spectrum leasing arrangements with commercial entities, contending that such leasing faced possible statutory barriers or could allow potential abuses without implementation of certain safeguards.[83] Two commenters also proposed consideration of future technological developments and the possibility of requiring that any leased spectrum be subject to "interruptible use" capacities that would enable public safety licensees to immediately reclaim the use of any leased spectrum for public safety emergencies.[84] Since issuance of the *Further Notice* in this proceeding, we have released the *Cognitive Radio NPRM* seeking comment upon, among other things, technical issues relating to "smart" or cognitive radios that could enable implementation of "interruptible" spectrum leasing arrangements that could be used with regard to leasing of spectrum licensed to public safety entities.[85] As our next step in this area, we intend to

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spectrum to other entities eligible under private land mobile entities that are eligible under Part 90 services); St. Clair County Reply Comments at 2-3 (general support for permitting public safety entities to lease spectrum to commercial entities).

[82] Additionally, we note that applicable buildout requirements also act as constraints against spectrum warehousing. *See, e.g.*, 47 C.F.R. §§ 90.155(a), (b).

[83] *See* APCO Comments at 1-6; CTIA Comments at 4-5; SBC Comments at 13; Winstar Comments at 3; ITA Reply Comments at 9-10. For instance, one commenter representing public safety officials expressed "grave concerns" about potential harm that might result if public safety entities were to lease spectrum on a commercial basis. It pointed out possible significant statutory barriers to such leasing involving spectrum 700 MHz band on the grounds that Section 337 of the Act might effectively preclude making such spectrum commercially available. This commenter also was concerned that while most public safety entities would act responsibly when leasing spectrum, some agencies might by pressured by cash-strapped state and local governments to lease more and more spectrum capacity, potentially to the detriment of public safety operational requirements, or they could be become "fronts" for commercial entities. *See* APCO Comments at 1-6. Another commenter opposed leasing by public safety entities on the grounds that they might warehouse spectrum. *See* CTIA Comments at 4-5. Two commenters supported providing public safety licensees greater flexibility to lease spectrum to others. *See* ITA Reply Comments at 9-10 (support for permitting public safety entities to lease spectrum to other entities eligible under private land mobile entities that are eligible under Part 90 services); St. Clair County Reply Comments at 2-3 (general support for permitting public safety entities to lease spectrum to commercial entities).

[84] One commenter recommended that any spectrum leasing of public safety channels should be subject to strict rules that ensure that the substantial majority of the public safety system is in fact used for public safety purposes, and that by public safety licensees can effectively reclaim the use of the spectrum, such as through newly developed cognitive radio capacity, when necessary. *See* APCO Comments at 1-6. Another commenter focused on possible future technological developments that would assist in developing appropriate leasing policies for public safety licensees, including "interruptible use" capacities that would enable public safety licensees to immediately reclaim the use of any leased spectrum for public safety emergencies. *See generally* WiNSec Comments.

[85] *See Cognitive Radio NPRM*, 18 FCC Rcd at 26878-26883 ¶¶ 51-67.

consider the technical issues raised in that proceeding, which appear to be important groundwork in addressing broader public safety spectrum leasing." (Emphasis supplied.)

The linkage between leasing and an effective methodology to provide ultra-reliable near-instant access by the national licensee to all of its spectrum is clear from the *Report and Order and Further Notice of Proposed Rule Making* and the *Second Report and Order, Order on Reconsideration, and Second Further Notice of Proposed Rulemaking* in WT Docket No. 00-230. The examination of the record in ET Docket No. 03-108 makes clear that the reliance of the leasing policy upon new technology is not obviously sound.

With respect to cognitive radios and their potential relevant to facilitating ultra-reliable near-instant access to interruptible spectrum, RCC is, of course, also familiar with the actions of the Commission in ET Docket No. 03-108 (cognitive radios) and the related ET Docket No. 00-47 (software defined radios). (In this regard, see: In the Matter of Inquiry Regarding Software Defined Radios, *Notice of Inquiry* (ET Docket No. 00-47), 15 FCC Rcd 5930 (Released March 21, 2000); In the Matter of the Authorization and Use of Software Defined Radios, *Notice of Proposed Rule Making* (ET Docket No. 00-47), 15 FCC Rcd 24442 (Released December 8, 2000); In the Matter of the Authorization and Use of Software Defined Radios, *First Report and Order* (ET Docket No. 00-47), 16 FCC Rcd 17373 (Released September 14, 2001); In the Matter of Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies, *Notice of Proposed Rule Making and Order* (ET Docket No. 03-108), 18 FCC Rcd 26859 (Released December 30, 2003); and In the Matter of Facilitating Opportunities for Flexible, Efficient, and Reliable Spectrum Use Employing Cognitive Radio Technologies, *Report and Order* (ET Docket No. 03-108), 20 FCC Rcd 5486 (Released March 11, 2005) (Cited by the Commission in the Ninth NPRM).)

If focus is placed upon the latest of the Commission's actions in ET Docket No. 03-108 (the *Report and Order* of March 11, 2005), it is plain that in the context of facilitating the use of interruptible spectrum, cognitive radios employ a technology of promise, but not a technology which by consensus is usefully available today. In the *Report and Order*, the Commission wrote:

> "80. In this section, we are describing the technical methods that a cognitive radio could use to enable interruptible secondary use of licensed spectrum by other parties. The concepts in this section would apply to lessors who want a high level assurance of reclaiming leased spectrum when they need it.
>
> "81. In the *Notice*, we sought comment on how cognitive radios could enable secondary markets in licensed spectrum. We described two general categories of access and reversion mechanisms that could be used by a lessee to gain access to spectrum on a secondary basis and allow the spectrum to revert back to the primary licensee when necessary. One category relies on the overt permission of the licensee and the other relies on equipment that senses the spectrum operating environment.
>
> "82. A particular access/reversion mechanism described in the *Notice* that relies on the overt permission of the licensee is a 'beacon' that can enable leased spectrum. Under this approach, use can be interrupted quickly with a high degree of reliability. In a beacon system, the lessee's transmitter must have the ability to receive a control signal

sent continuously by the licensee at times when transmissions by the lessee are permitted. The lessee may not commence transmissions if the beacon signal is not received, and if the beacon signal is present but then stops while the lessee is transmitting, transmissions must cease within a specified time interval. The beacon could be an RF signal sent by the licensee on a designated control frequency, or it may be a signal received over a physical connection such as fiber, copper or coaxial cable. If the beacon signal suffers from unfavorable propagation or the physical connection is lost, the licensee has 'fail-safe' protection against interference, because if the lessee cannot hear the beacon signal, it must cease transmission.

"83. Another mechanism that relies on the overt permission of the licensee involves a 'handshaking' approach. This would offer more reliability and security by requiring the lessee to receive explicit permission to use spectrum before each transmission. However, implementation of a handshaking approach may increase the complexity of implementation. Other examples of access/reversion mechanisms that rely on the overt permission of a licensee include one that would allow a lessee to transmit until the licensee signals the user to cease operation. The reliability of this approach is limited because a lessee who is unable to hear the signal ordering it to cease operation may not be aware that it should relinquish use of the spectrum.

"84. In the *Notice*, we sought comment on possible regulatory approaches for the use of the beacon model or other access/reversion mechanisms for interruptible spectrum leasing. One approach would be to establish a technical model for reliable access to and secure reversion of leased spectrum that certain licensees would have the option of using to structure their leasing arrangements. Another would be for the Commission to adopt the technical model in the form of rules for lessees of spectrum. We stated that under either approach, the establishment of technical criteria for cognitive radio devices to provide access/reversion of leased spectrum could help to achieve the significant benefits of spectrum leasing without detrimentally affecting licensees[9] ability to access spectrum.

"85. Although there was interest in the availability of interruptible spectrum leasing, parties did not address the specific technical mechanisms we set out in the *Notice.* Several parties generally express concern about the technical viability of interruptible spectrum leasing. However, two of these parties claim that interruptible leasing may be practical on trunked systems, which have a centralized system control. Other parties believe that cognitive based leasing mechanisms such as beacon networks are possible, but worry that they would result in high leasing costs. No party suggested that it would be helpful at this point for the Commission to adopt a particular technical model for interruptible spectrum leasing.

"86. As described below, we find that there are technologies available now or under development that could safely allow for interruptible spectrum leasing. We find that cognitive radio technologies, or even trunked radio technologies, would allow implementation of the following general principles that interested parties state would be essential to enable interruptible leased use of spectrum:

1, The licensee must have positive control as to when the lessee can access the spectrum.

2. The licensee must have positive control to terminate the use of the spectrum by

the lessee so it can revert back to the licensee's use.

3. Reversion must occur immediately upon action by the licensee unless that licensee has made specific provisions for a slower reversion time.

4. The equipment used by the licensee and the lessee must perform access and reversion functions with an extremely high degree of reliability.

5. The equipment used by the licensee and the lessee must incorporate security features to prevent inadvertent misuse of, and to thwart malicious misuse of, the licensee's spectrum.

"87. There are at least three different technical approaches that currently exist or are under development that a licensee could employ that would comply with the intent of these principles and enable interruptible spectrum leasing. One approach would be for a licensee to allow leasing using an existing trunked system. A trunked system uses a central controller to select the operating frequencies of radios in the system. When a radio is ready to begin transmitting, it sends a request for an operating frequency to a central controller over a control channel. The controller dynamically assigns an operating frequency to that radio and the other radios with which it communicates. Such a centralized system could be used to assign channels to radios operating under the terms of a lease, or de-assign channels when a licensee needs to use the spectrum. This could be done through a wireless control channel as is currently done to assign channels to radios in the system. Alternatively, information about leased channel availability could be provided by the trunked system controller to the lessee's equipment through a wired link.

"88. The beacon approach proposed in the *Notice* and described above is similar to a trunked system in that it uses a centralized controller to enable operation of lessee's equipment. The beacon could operate either on a frequency licensed to the public safety entity or on a separate control frequency in another band. The approach would require additional infrastructure such as the beacon transmitters and radios that are capable receiving die beacon and adjusting their operation in response to the beacon signal.

"89. A third method that could enable leased use of spectrum is by an exchange of 'tokens' sent to the lessee's devices. Token approaches rely on the encrypted exchange of unique information to verify a user's identity when opening and maintaining a secure communications exchange. Tokens would provide a means of ensuring that lessees transmit only on available frequencies when they receive an electronic token authorizing them to do so. These tokens could also enforce terms of a lease such as the specific period of time that transmission on a frequency is allowed, thus providing a licensee with a high level of confidence that lessees will vacate the spectrum when required under the terms of the lease. Such token technology is already in use in other resource allocation problems, such as the enforcement of software license terms and avoiding data transmission conflicts between computers on local area networks.

"90. At this point, we see no need to adopt any particular technical model for interruptible spectrum leasing. Ultimately, a licensee must itself be satisfied that the technical mechanism being implemented under a lease does in fact provide it with the

ability in real time to reclaim use of its spectrum when necessary." (Footnotes omitted; and emphasis supplied.)

The *Report and Order* hardly paints a picture of fully-tested, currently-available technology that can provide ultra reliable near-instant access by a public safety services provider to spectrum leased to commercial service providers.

Integrating the discussions of spectrum leasing and cognitive radios with the broader structure of the Ninth NPRM makes the following logic clear:

Because:

- *The Commission's Public Safety Broadband Proposal requires the selection of one national licensee;*

- *The national licensee, which is not a commercial entity, is expected to finance the national public safety broadband network through a partnership or other arrangement with one or more commercial service providers;*

- *Critical to the national licensee's arrangements with one or more commercial service providers is the leasing of spectrum by the national licensee to one or more providers of commercial service;*

- *The spectrum must be leased upon an unconditionally interruptible basis;*

- *Unconditionally interruptible access through leasing can only be effective if it provides near-instant access for the national licensee to all of its public safety spectrum;*

- *Cognitive radios may allow ultra-reliable near-instant access by the national licensee; and*

- *But, while cognitive radios employ a technology of promise, there is no consensus that cognitive radios can now or in the near future provide the required ultra-reliable near-instant access by the national licensee.*

It seems, therefore, that the entire superstructure of the Commission's Public Safety Broadband Proposal ultimately rests upon one rather weak reed.

7. The changed meaning of interoperability

Until the Ninth NPRM, the Commission reflected an understanding of the complexity of interoperability, but, in the Ninth NPRM, the Commission, in effect, dismissed that complexity and identified interoperability as it relates to broadband usage exclusively with network infrastructure-based interoperability on a national basis. That dismissal effected a fundamental derogation of critical aspects of interoperability as it relates to local and regional needs and as it may be achieved in part by means other than a national infrastructure. That dismissal and

derogation is evident when review is made of the actions of the Commission in WT Docket No. 96-86. That review is provided below.

> (a) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Notice of Proposed Rule Making*, 11 FCC Rcd 12460 (Released April 10, 1995)

In the *Notice of Proposed Rule Making*, the first notice of proposed rule making issued by the Commission in the above-entitled docket, the Commission examined the definition of "interoperability" and other terms in the context of the definition thereof under consideration by PSWAC. In this connection, the Commission recognized the complexity of the concept of interoperability and wrote as follows:

> "26. In order to promote the development of this communication capability, we must first define what is meant by interoperability. In this connection, the Interoperability Subcommittee of PSWAC is considering the following definition of interoperability and related definitions:
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> Interoperability: An essential communications link within public safety and public service wireless communications systems which permits units from two or more different agencies to interact with one another and to exchange information according to a prescribed method in order to achieve predictable results.
>
> The communications link may be classified as either of the following two types:
>
> - - Infrastructure-independent: The communications link occurs between subscriber units over a direct RF path. An example is portable-to-portable tactical communications at the scene of an incident.
>
> - - Infrastructure-dependent: The communications link requires use of some item(s) of equipment, other than a subscriber unit, for the establishment of the link and for complete subscriber operation. Some examples include a communications link for which a repeater station is required; a communications link which provides full system coverage for a visiting subscriber unit within a host trunked radio system; and a communications link which provides interconnectivity between two or more otherwise incompatible radio systems by cross-connecting the audio signals and/or appropriate signaling functions at some central point.
>
> The communications link, whether infrastructure dependent or independent, must satisfy one or both of the following requirements:
>
> - - Multi-jurisdictional: Wireless communications involving two or more similar agencies having different areas of responsibility. Some examples include a fire agency from one city communicating with a fire agency from another city and the Federal Bureau of Investigation communicating with a County Sheriff.

- - Multi-disciplinary: Wireless communications involving two or more different agencies. One example is a police agency communicating with an emergency medical services agency.

The communications link may involve any combination of subscriber units and fixed equipment (e.g., repeaters, dispatch positions, data resources). The points of communication are dependent upon the specific needs of the situation and any operational procedures and policies which might exist between the involved agencies." (Footnotes omitted; and emphasis supplied.)

"28. We believe that the need for interoperability in public safety communications arises in three general contexts. One context is day-to-day operations. The day-to-day operations of public safety organizations require routine intercommunications capabilities. Police officers in adjoining jurisdictions as well as firefighters and emergency medical personnel in the same jurisdiction, for example, routinely need to exchange information. Typically, day-to-day interoperability requirements are local or regional in nature.

"29. A second context is mutual aid incidents. We believe that on-scene mutual aid communications at the site of major fires, plane crashes, chemical spills, and other disasters represent one of the more challenging and critical needs for interoperability. In these situations, coordination among numerous public safety agencies from different jurisdictions, and sometimes even from different disciplines, is imperative. For example, on the site of a major plane crash, there could be representatives from law enforcement, fire, and emergency medical personnel from Federal, state and local jurisdictions. These various entities must communicate not only with each other but also with other agencies, such as highway maintenance, public works, public utilities and transportation authorities.

"30. The third category is emergency preparedness events or task force operations. Emergency preparedness and task force operations involve joint operations of local, regional, state and Federal agencies. The number of public safety agencies involved in emergency preparedness is usually substantial because the agencies' responsibilities range from planning for disaster relief to coordinating tactical operations responding to threats to life or property. Task forces typically involve deployment of emergency operations centers, establishment of on-scene command posts, and dispatch of tactical units throughout a wide area. We believe that interoperable communications systems greatly enhance tactical operations among multi-jurisdictional and multi-discipline agencies participating on the task force." (Footnotes omitted; and emphasis supplied.)

(b) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *First Report and Order and Third Notice of Proposed Rule Making*, 14 FCC Rcd 152 (Released September 29, 1998)

In the *First Report and Order and Third Notice of Proposed Rule Making*, the first substantive decision issued by the Commission in the above-entitled docket, the Commission again examined interoperability in a administrative context, recognized the complexity thereof, and wrote as follows:

> "73. The band plan that we adopt in this *First Report* designates specific channels (representing approximately 10 percent of the 700 MHz public safety band) for interoperability communications. As a general matter, interoperability refers to the ability of units from two or more government agencies to interact with one another and exchange information. In this subsection of the *First Report,* we adopt general guidelines for operation and use of the spectrum dedicated to interoperability.
>
> "74. Public safety agencies have traditionally operated their own systems using frequencies and equipment that are not necessarily compatible with those used by other agencies. In the *First Notice* and *Second Notice,* the Commission discussed the need for interoperability in public safety communications in the general contexts of mutual aid incidents, emergency aid incidents or task force operations, and day-to-day operations. The Commission observed that interoperability must often be established during emergencies and under conditions that allow little opportunity for prior planning; that communications must often be established among numerous smaller groups, each with its own talk group; and that, once responders are on the scene, mutual aid interoperability usually involves the use of portable radios. The Commission also noted that emergency preparedness involves planning for disaster relief that may include many public safety agencies from various jurisdictions. Task forces also typically involve agencies from many disciplines and jurisdictions, and thus require interoperable communications systems; they also frequently deploy emergency operations centers, establish on-scene command posts, and dispatch units throughout a wide area. The Commission also noted that day-to-day operations are those requiring routine communications capabilities, as when personnel in adjoining jurisdictions, or within different disciplines in the same jurisdiction, need to exchange information and that, typically, these requirements are local or regional, as when agencies with concurrent jurisdiction need to monitor each other's routine traffic.
>
> "75. In the *First Notice,* the Commission proposed a formal definition of interoperability and related definitions that at the time were under consideration by the Interoperability Subcommittee of PSWAC. These definitions were ultimately adopted by PSWAC and included in the *PSWAC Final Report.* In the *Second Notice,* the Commission stated that a primary goal with respect to interoperability should be seamless interoperability on a nationwide basis. Towards attaining this important goal, the Commission also tentatively concluded in the *Second Notice* that the earlier-proposed definitions should be adopted. Commenters to the *Second Notice* generally support the adoption of these proposed definitions." (Footnotes omitted; and emphasis supplied.)

(c) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Fourth Notice of Proposed Rule Making*, 15 FCC Rcd 16899 (Released August 2, 2000)

In the *Fourth Notice of Proposed Rule Making*, the Commission addressed certain administrative aspects of the maintenance of interoperability.

> "19. *Administrative Oversight*. In the *Third Notice*, we sought comment on how to administer the interoperability spectrum.[86] Specifically, we sought comment on whether we should use the RPCs, the states, or some other entity to manage the interoperability channels.[87] Some commenters contended that the RPCs should administer the interoperability channels and should have the option of assigning the channels directly to the states.[88] Other commenters thought that the NCC should decide the issue in the first instance.[89] With regard to state management of the interoperability channels, the State of Arizona (Arizona) does not wish to be responsible for administration of the interoperability spectrum.[90] The State of California (California) noted that while it has a strong statewide communication organization, other states may have insufficient resources available to adequately manage the interoperability channels.[91]
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> "20. The NCC asserts that most large-scale events and disasters where interoperability will be used are governed by state statute.[92] Further, the NCC notes that most wide-area mutual aid operations are managed and controlled by state-level organizations.[93] In addition, the NCC contends that in states where there are multiple RPCs, or where one RPC covers multiple states, RPC administration of interoperability spectrum may be difficult.[94] For these reasons, the NCC recommends that the states and RPCs work together at the state level. Specifically, under the NCC proposal, administration of the interoperability channels would be handled by the states, and oversight of the interoperability infrastructure would be handled by the RPCs.[95] Under this framework, states would hold the license and be responsible for developing statewide

"[86] *Third Notice*, 14 FCC Rcd at 233.

"[87] *Id*. at 234. We initially received 11 comments in response.

"[88] *See* Association of Public-Safety Communications Officials-International, Inc. (APCO) Comments at 5; State of California (California) Comments at 7; NPSTC Comments at 7.

"[89] *See* Federal Law Enforcement Wireless Users Group (FLEWUG) Comments at 18; Public Safety Wireless Network (PSWN) Comments at 16.

"[90] Arizona Reply Comments at 8.

"[91] California Comments at 7.

"[92] NCC Report at Appendix E at 1.

"[93] *Id.*

"[94] *Id.*

"[95] *Id*.

interoperability plans.[96] The states would administer the interoperability channels; whereas the RPCs will perform technical reviews of the applications. For example, the state could be responsible for creating and overseeing incident response protocols, creating chains of command for incident response and reporting, and other operating functions. If a state were unwilling to do so, however, then the NCC recommends that the RPCs would assume this responsibility.

"21. We agree with the NCC that administration of the interoperability channels should occur at the state level. As noted by the NCC, state-level organizations[97] are usually in charge in multi-agency incidents. Further, states are in a better position to deal with Federal Government emergency agencies. Therefore, we propose to have the states administer the interoperability spectrum. Under this approach, applications for interoperability spectrum must be approved by a state-level agency or organization responsible for administering state emergency communications. The state (or state-level agency) can be the licensee for all stations operating on the interoperability channels or it could approve other eligible public safety entities—such as local governments—to be a licensee. A state may delegate this approval process for interoperability channels to another entity, such as an RPC.

"22. In addition, the NCC recommends: (a) the formation of State Interoperability Executive Committees (SIECs); (b) that the Commission license "subscriber equipment" (mobile and portable units) operating on interoperability channels; (c) that RPCs oversee interoperability infrastructure; and (d) the adoption of standardized templates for Memoranda of Understanding between SIECs and sharing agreements between jurisdictions.[98] These recommendations are discussed separately below."

(d) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Fourth Report and Order and Fifth Notice of Proposed Rule Making,* 16 FCC Rcd 2020 (Released January 17, 2001)

In the *Fourth Report and Order and Fifth Notice of Proposed Rule Making,* the Commission wrote again of interoperability emphasizing the regional/state aspect of interoperability:

"65. *Background.* The NCC recommended, and we agreed, that we should designate two Interoperability channels as calling channels to use as gateways to other channels.[99] Public safety entities, particularly those from "outside the system," would use calling

"[96] *Id.*

"[97] State level entities may include the Governor of the state or his or her designee (including a state agency).

"[98] NCC Report at 11 ¶ 33.

[99] NCC Report at 15 ¶ 45.

channels to access the public safety communications infrastructure in the area where they are located. For example, a fire department responding to an incident in another county could use the calling channels to find out the appropriate on-scene tactical channel or how to contact other public safety entities such as the police. In addition, the NCC recommended that we require licensees using the associated Interoperability channels to monitor the calling channels. In addition to normal calling channel use, the NCC recommends using the channels to declare emergencies and to request the immediate release of any channels being used for secondary trunking.[100] Finally, the NCC recommends that we forbid the use of encryption on calling channels.

"66. We agreed that calling channels were a key part of any Interoperability system. Accordingly, we proposed to specify two of the 700 MHz Interoperability channels as nationwide calling channels.[101] We indicated that these channels would be reserved for activities such as coordination of multiple public safety entities at the scene of an incident or entities that were outside the system, but were requesting help or information.[102]

"67. *Discussion*. After consideration of the comments and the overwhelming support for codifying the NCC's recommendation,[103] we reiterate our support for designating two Interoperability channels as calling channels. We continue to believe that calling channels are integral to a successful Interoperability system. Accordingly, we will designate two nationwide calling channels in the band plan.[104] In addition, as the NCC recommended, [105] we prohibit encryption on the calling channels; these channels must be open and readily-accessible, so that public safety entities from neighboring jurisdictions can communicate easily, and identify on which channel they should meet in the event of an emergency.

"68. With regard to licensees operating fixed equipment on the Interoperability channels to monitor the calling channels, we will allow the states to address this issue. We agree with those parties commenting on this issue that the details of such monitoring, including the specific monitoring scheme for the release of channels being used for secondary trunking, should remain at the state level.[106] (Emphasis supplied.)

"[100] *Id.* at 15 ¶ 47; *see also Fourth Notice*, 15 FCC Rcd at 16915 ¶ 39.

"[101] *See Fourth Notice*, 15 FCC Rcd at 16915 ¶ 40.

"[102] *Id*.

"[103] Illinois State Police Comments at 5; Joint Commenters Comments at 10-11; NPSTC Comments at 6; Orange County Comments at 4; PSWN Comments at 7; Florida Comments at 5; California Comments at 12; Mesa Comments at 4.

"[104] The two nationwide calling channels are 39/999, 40/1000, 681/1641, and 682/1642.

"[105] *Fourth Notice*, 15 FCC Rcd at 16915 ¶ 39.

"[106] Florida Comments at 5, "we believe it should be left to the state and RPC planning levels to address the details of monitoring requirements (*e.g.*, 24 hours, 7 days/week, and equipment configuration . . . . " California did not oppose monitoring, but asks "who will fund such coverage?" California Comments at 13.

(e) In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *Eighth Notice of Proposed Rule Making*, 21 FCC Rcd 3668 (Released March 21, 2006)

In the *Eighth Notice of Proposed Rule Making*, the last statement of the Commission on interoperability before the release of the Commission's Public Safety Broadband Proposal, the Commission wrote:

> "30. *Interoperability Requirements*. We seek comment on public safety's interoperability needs. The wideband segment consists of interoperability and general use channels. Presently, there is no wideband interoperability standard and wideband general use radios are not required to have the capability of operating on the wideband interoperability channels. The wideband channels differ from the narrowband channels in this regard, because narrowband equipment, with minor exceptions, must be capable of operating on the narrowband interoperability channels using Project 25.[107] In the *Seventh NPRM*, the Commission stated its belief that "the rules governing interoperability channels should be similar for wideband and narrowband mobile and portable radios."[108] Accordingly, the Commission tentatively concluded "that the rules should be amended to require wideband mobile and portable radios to be capable of operating on all the wideband interoperability channels using the [SAM] standard."[109] As discussed below, we are continuing in this proceeding to consider the proposed SAM standard for the channels designated within the current band plan for wideband interoperability.
>
> "31. We remain committed to ensuring that emergency first responders have access to reliable and interoperable communications. NPSTC suggests we may need to reevaluate the objective of interoperability and how a revised band plan would best promote interoperability.[110] In the event we were to adopt a proposal to rechannelize the public safety spectrum within the 700 band in order to accommodate broadband operations, we seek comment on what, if any, measures should be taken to promote interoperability in the broadband environment. As noted above, NPSTC proposes that each RPC should have the flexibility to determine the broadband channelization for its region. We seek comment on whether allowing such flexibility would undermine interoperability among public safety agencies that operate in different regions. We also ask commenters to address whether there remains a need for wideband interoperability, and if so, the amount of spectrum that should be allocated for wideband interoperability. Commenters should identify what benefits could be achieved by requiring broadband

"[107] 47 C.F.R. § 90.548.

"[108] *See Seventh NPRM*, 20 FCC Rcd at 853 ¶ 53.

"[109] *Id*. The Commission noted one exception recommended by the NCC: special-purpose equipment where the modem is integral to the special-purpose device (*i.e.,* a non-detachable component in a common enclosure or case).

"[110] *See Nov. NPSTC Letter* at 1.

radios to be capable of operating on the wideband interoperability channels." (Emphasis supplied.)

The Ninth NPRM represents a radical departure from the Commission's prior thinking on interoperability and represents an improper simplification of previously recognized complexity.

C. Conclusion respecting the views of the public safety community and the regulatory discontinuity represented by the Commission's Public Safety Broadband Proposal

RCC respectfully submits that it has in this Part III of the RCC Comments demonstrated that the Commission's Public Safety Broadband Proposal is inconsistent with the overwhelming weight of public safety opinion expressed before the Ninth NPRM and is further inconsistent with several of the positions previously taken on policy issues that underlie the Commission's Public Safety Broadband Proposal.:

In Part IV of the RCC Comments which follows, RCC addresses:

- the wisdom of the Commission's Public Safety Broadband Proposal; and
- the extent to which:
    - that proposal is unworkable; and
    - that proposal is fraught with uncertainties, problems, and the potential for conflict and other adverse developments.

IV. The Commission's Public Safety Broadband Proposal Is Unwise as It Reflects an Unworkable Proposal or a Proposal so Fraught with Uncertainties, Problems, and the Potential for Conflict and other Adverse Developments that It Is Unlikely to Assure the Rapid Deployment of a Nationwide, Interoperable, Broadband Public Safety Network, and thereby Improve Emergency Responsiveness.

In this Part IV of the RCC Comments, RCC sets forth the bases for the conclusion that the Commission's Public Safety Broadband Proposal is so:

- unwise;
- unworkable; and
- fraught with uncertainties, problems, and the potential for conflict and other adverse developments.

that its ability to produce the benefits intended by the Commission to be created thereby is doubtful at best.

RCC grounds that overall conclusion in five analyses and related constituent conclusions as follows:

- *The Commission's Public Safety Broadband Proposal is not based upon a sound operational foundation;*
- *The Commission's Public Safety Broadband Proposal is not based upon a sound technical foundation;*
- *The Commission's Public Safety Broadband Proposal is not based upon a sound commercial foundation;*
- *The Commission's Public Safety Broadband Proposal relies upon material unproven assumptions and fails to consider developments at the regional and local level in public safety that undermine certain of the assumptions upon which that proposal depends; and*
- *The Commission's Public Safety Broadband Proposal is unlikely to meet the objectives set by the Commission therefor.*

Each of those analyses is the subject of one of the Sections of the RCC Comments which follows (Part IV.A-E).

A. The Commission's Public Safety Broadband Proposal is not based upon a sound operational foundation.

In this Section IV.A of the RCC Comments, RCC sets forth the bases for the conclusion that the Commission's Public Safety Broadband Proposal is not based upon a sound operational foundation. RCC grounds that conclusion in eleven analyses and related constituent conclusions as follows:

- *The Commission's Public Safety Broadband Proposal proceeds upon a misunderstanding of the needs of first responders;*

- *The Commission's Public Safety Broadband Proposal does not include the requisite degree of regional flexibility;*

- *The establishment of a monopoly is not the best approach to promoting the rapid deployment of a nationwide, interoperable, broadband public safety network and thereby to improve emergency responsiveness;*

- *The Commission has taken upon itself too much responsibility for the specification of the proposed network;*

- *The Commission has misconceived the sources of operational progress in the development of effective interoperability for public safety first responders;*

- *The Commission has not addressed operational problems associated with a national licensee's control of the preemption of access;*

- *The Commission has not addressed operational problems associated with the absence of local control of communications access in an emergency;*

- *The Commission has not addressed the need for practice exercises in order to maintain effectiveness of interoperations and the dependence of such exercises on local/regional control of the radio system which is relied upon;*

- *The Commission has not addressed either the differences in technical standards between public safety radio systems and commercial radio systems or the problem of public safety technical standards' not being met and maintained;*

- *The Commission has not addressed maintenance standards and network recovery requirements; and*

- *The Commission has not addressed the absence of operational alternatives for public safety agencies which have requirements not met by the national public safety broadband network proposed.*

Each of those analyses is the subject of one of the sub-sections of the RCC Comments which follows (Part IV.A.1-11).

1. The Commission's Public Safety Broadband Proposal proceeds upon a misunderstanding of the needs of first responders.

In the first paragraph of the Ninth NPRM, the Commission established, by implication, a test for the effectiveness of the Commission's Public Safety Broadband Proposal: Does the proposal help "to ensure that emergency first responders have access to reliable and interoperable communications"? RCC respectfully submits that the answer to this question is not necessarily "yes" and that there is substantial reason to believe that the proposal will delay the provision of reliable and interoperable wideband or broadband communications to fist responders.

"First responders" are, by definition, the first public safety personnel to respond to an emergency. First responders are, therefore, always local or regional personnel employed proximate to the incident creating the emergency. The needs of first responders for reliable and interoperable communications are undeniable, but those needs do not depend upon the availability of a nationwide public safety broadband network as proposed by the Commission.

When public safety personnel from across the country go to the site of a major national disaster, those personnel are not first responders. They provide a critical service, but that service is not a first response.

If all of the spectrum available for wideband or broadband public safety communications in the 700 MHz band is dedicated to the national public safety broadband network proposed by the Commission, state, local, and regional public safety agencies will have no spectrum available to build their own wideband or broadband networks in support of true first responders, and those agencies will have to wait for the build-out of the national network which may or may not ever reach their territories or adequately satisfy their needs.

A national public safety broadband network would contribute to making reliable and interoperable communications available to public safety personnel from across the country when they go to the site (remote from them) of a major national disaster where they can provide material assistance to the public safety agencies proximate to the site of the disaster and primarily responsible therefor, but those remote public safety personnel are not first responders and are not going to contribute to a first response.

2. The Commission's Public Safety Broadband Proposal does not include the requisite degree of regional flexibility.

In the second paragraph of the Ninth NPRM, the Commission established, by implication, a second test for the effectiveness of the Commission's Public Safety Broadband Proposal: Does the proposal include the requisite "degree of regional flexibility necessary to allow opportunities for tailored approaches to meeting the needs of regional communities"? RCC respectfully submits that the answer to this question is necessarily "no" and that there is substantial reason to believe that the proposal will delay the provision of reliable and interoperable communications to

fist responders for failure to include the requisite degree of regional flexibility.

Regional communities are substantially, if not entirely, excluded from a role in the Commission's Public Safety Broadband Proposal, except for their role as users on a fee for service basis. This derogation of the role of regional communities imports the risk, and possibly the certainty, that the national public safety broadband network proposed will not meet state, local, and regional needs whether because of deployment issues, coverage issues, cost issues, or otherwise.

The Commission's Public Safety Broadband Proposal essentially fails to recognize the fundamentally local nature of first responses to emergencies and the critical linkage between state, local, and regional first response and state, local, and regional input with respect to, and likely direct control of, the communications infrastructure upon which state, local, and regional public safety agencies rely. There are 3,537,438 square miles within the borders of the United States. (See: *U.S Census Bureau Quick Facts for 200*5.) How is it possible that the national licensee monopolist which has no knowledge of the requirements in terms of coverage and otherwise of all the states, counties, cities, and towns will provide the first providers who need effective communications tools to improve emergency responsiveness?

No national licensee and no commercial lessee of the spectrum of that licensee can ever master the operational procedures, the local knowledge, and the local requirements of all state, local, and regional public safety agencies in the country, and it follows, therefore, that every national network is a compromise as it relates to state, local, and regional needs. The solely or essentially national perspective of the national licensee must necessarily avoid focus upon state, local, and regional needs. As a consequence of that national perspective and its effect upon national network design, it is highly likely that the national network, nationally designed, will be viewed as a flawed compromise by from particular state, local, and regional public safety agencies.

3. The establishment of a monopoly is not the best approach to promoting the rapid deployment of a nationwide, interoperable, broadband public safety network and thereby improve emergency responsiveness.

In the third paragraph of the Ninth NPRM, the Commission established, by implication, a third test for the effectiveness of the Commission's Public Safety Broadband Proposal: Does the proposal "best promote the rapid deployment of a nationwide, interoperable, broadband public safety network" and, by so doing, "improve emergency responsiveness"? RCC respectfully submits that the answer to this question is not necessarily "yes" and that there is substantial reason to believe that the proposal will delay the provision of reliable and interoperable communications to fist responders by reason of its reliance upon a monopoly public safety services provider.

By allocating all available 700 MHz public safety wideband and broadband spectrum to one national licensee and one alone, the Commission is quite directly creating a monopoly in public safety wideband and broadband interoperable communications. The monopoly of that licensee and its associated commercial services provider is not a good starting place for rapid and responsive network deployment. Freed of competition and the availability of choice on the part of customers, monopolists have no history of prompt, effective, customer-driven actions.

RCC respectfully submits that it is quite surprising to see the Commission rely upon what is essentially a monopolist for a rapid, customer centered focus upon the development of a telecommunications network. No body should be more aware of the creativity and diversity of telecommunications offerings and the rapidity of their deployment since the demise of the monopoly of AT&T. Against that background, does the Commission truly believe that depriving state, local, and regional public safety agencies of choice and installing a monopoly provider of public safety interoperable broadband services is the best approach to promoting "the rapid deployment of a nationwide, interoperable, broadband public safety network" and, by so doing, "improve emergency responsiveness"?

4. The Commission has taken upon itself too much responsibility for the specification of the proposed network.

In the fourth paragraph of the Ninth NPRM, the Commission itself undertook responsibility for:

- establishing "performance requirements for interoperability, build out, preemptibility of commercial access, and system robustness"; and

- facilitating "the shared use of commercial mobile radio service (CMRS) infrastructure for the efficient provision of public safety broadband service."

In these respects, the Commission appears to have gone beyond the establishment of a monopoly and to propose to invoke central planning and establish the Commission as a continuing and heavy guiding hand for the establishment of the national public safety broadband network. The effect of the Commission's Public Safety Broadband Proposal is, therefore, the establishment of a monopoly public safety broadband provider under the thumb of the Commission in material aspects of its operations.

Does the Commission truly believe that it is in a better position than state, local, and regional public safety agencies to understand those very agencies' performance requirements for interoperability, build-out, the preemption of commercial access, and system robustness?

Does the Commission truly believe that a continuing role for the Commission is operational matters will best serve the needs of first responders?

How would the Commission rationalize the central planning approach of the Commission's Public Safety Broadband Proposal with the positions of the Commission's working groups on spectrum efficiency and the antipathy thereby expressed for the command and control model?

Is the essentially retrograde 'government knows best' approach implicit in the Ninth NPRM truly the best way to make the "significant departure from the typical public safety allocation model the Commission has used in the past" referred to by the Commission in the Ninth NPRM? (NPRM at ¶ 11)

5. The Commission has misconceived the sources of operational progress in the development of effective interoperability for public safety first responders.

In the Ninth NPRM, the Commission referred to its own "making progress towards achieving nationwide interoperability in the 700 MHz public safety band" (NPRM at ¶ 7), but held RPCs responsible for "uneven build-out across the country in different bands, balkanization of spectrum between large numbers of incompatible systems, and interoperability difficulties if not inabilities" (Ninth NPRM at ¶ 11). The unfairness of those observations of the Commission is profound.

The statements of the Commission in these respects fail to acknowledge the extraordinary progress in interoperability and mutual aid actually achieved, for example, in the Nation Capital Region (the "NCR"). The Commission fails, it seems, as well to recognize, as is so obviously the case in the NCR, that interoperability and its effectiveness involve much more than merely the technical ability to communication, but also depend even more fundamentally upon operational coordination, *e.g.*, response by closest available units without regard to jurisdiction, that gives real meaning to technical communications interoperability. (The description of interoperability within the NCR refers specifically to the mutual aid policies of the fire and rescue agencies in and around Washington, DC, including District of Columbia Fire/EMS; Fairfax County, VA, Fire and Rescue; Arlington County, VA, Fire and Rescue; City of Alexandria, VA, Fire and Rescue; Metropolitan Washington Airports Authority Fire Department, Montgomery County, MD, Fire and Rescue; Loudon County, VA, Fire and Rescue; Prince William County, VA, Fire and Rescue; and other agencies.)

The Commission's focus upon a national network, with national standards, and a national provider is so narrow as to obscure the full range of operational issues involved in the coordination of a multi-agency or multi-jurisdictional response to an incident. While technical communications interoperability is a necessary condition to an effective first response, it is not nearly a sufficient condition. An effective emergency response depends upon coordinated emergency response planning which is to the greatest degree a state, local, or regional responsibility.

Communications interoperability is a support element for a planned response, but does not, in and of itself, assure the effectiveness of a first response. Support for essentially state, local, or regional response does not naturally come from a national provider necessarily remote from state, local, and regional requirements.

The "departure" represented by the Commission's Public Safety Broadband Proposal may be, in effect, a detour from the proper course which should be support for state, local, and regional emergency response – support which can best be provided by those closest to the organizations responsible for planning and responding.

The Commission's emphasis upon "nationwide interoperability" confuses the highly desirable interoperability meeting local needs across the nation with the rarely needed interoperability on a

national basis such that would support assistance to New York from California or assistance to Florida from Texas.

A uniform national solution denigrates the role and achievements and the needs and organizational requirements of state, local, and regional agencies in establishing effective regional response, including communications interoperability, and elevates a kind of interoperability that can be achieved by other means and is, fortunately, not often called upon.

When assistance is provided to New York by California or by Florida to Texas, the effectiveness of assistance depends upon the integration of external assistance with local efforts and coordination, which integration requires much more than technical communications interoperability.

When, in a true national emergency, assistance from across the nation is required, interoperability may be far more effectively established by the issuance of communications gear, together with locally-utilized applications and usage protocols, at a staging area proximate to the site of the incident than by utilization by assistance providers of their own equipment not programmed with locally-utilized applications and usage protocols.

By denigrating the role and achievements of state, local, and regional agencies, the Commission sets the stage for the detour from effective interoperability which, RCC respectfully submits, is the Commission's Public Safety Broadband Proposal.

6. The Commission has not addressed operational problems associated with a national licensee's control of the preemption of access.

Under the Commission's Public Safety Broadband Proposal, the national licensee would make decisions respecting the cessation of secondary commercial use. (Ninth NPRM at ¶ 41) The problem is that it is not the national licensee which, at any time, requires the cessation of secondary commercial use, but rather those state, local, and regional public safety agencies which at that particular moment are experiencing problems which require access to the entire 700 MHz public safety broadband spectrum. The Commission does not in any manner address:

- Why control over the cessation of secondary commercial use does not rest with the agencies which have the emergency need therefor?

- How the national licensee will be able to guaranty that secondary commercial use ceases immediately essentially instantly in all areas where such cessation is instantly required?

- How the national licensee will ensure that secondary commercial usage does not cease where cessation is not required?

- What operational arrangements will be in place to assure that the national licensee can be contacted 24/7/365 to effect secondary usage cessation?

- How to ensure that the national public safety broadband network is designed so as enable selective instant geographic cessation of secondary commercial service by both infrastructure and mobile units?

7. The Commission has not addressed operational problems associated with the absence of local control of communications access in an emergency.

The Commission's Public Safety Broadband Proposal appears to facilitate access to service being granted by the national licensee. That proposal makes no provision for control of access by state, local, and regional public safety agencies. The proposal thus appears to view with favor uncoordinated access to the national network by public safety agencies which are not the agency or agencies providing the first response and subsequent response to a major incident. Such uncoordinated access could pose serious problems for the public safety agencies which have direct responsibility for managing the response to an incident.

Public safety agencies have developed elaborate talk group arrangements among agencies and responders to assist in the management of communications. All such talk group membership arrangements are made at the state, local, or regional level. No national coordination of such groups has been developed on a national basis, and it is unlikely that such arrangements could ever be developed effectively or properly maintained. In addition, as noted above, data transmissions, unlike voice, take place within a context established by various applications. Those applications are not necessarily adopted nationwide, and, therefore, a visiting provider of public safety assistance without access to the applications used locally has only theoretical interoperability, but not actual interoperability under the Commission's Public Safety Broadband Proposal.

Network level interoperability of the sort contemplated by the Commission's Public Safety Broadband Proposal begs the questions:

- How will mere technical network level interoperability assure that a visiting provider of assistance can communicate with the local responsible public safety agency?

- How will mere technical network level interoperability assure that the local responsible public safety agency is able to communicate effectively with visiting providers of public safety assistance?

- How will the problems created by visiting providers of public safety assistance offering uncoordinated and possibly unhelpful traffic on the national network during a response to an incident be avoided?

8. The Commission has not addressed the need for practice exercises in order to maintain effectiveness of interoperations and the dependence of such exercises on local/regional control of the radio system which is relied upon.

It is generally recognized that the effectiveness of emergency responses is very much related to practice and other exercising of emergency response plans. Those practice exercises must be

carefully coordinated because real incidents can and do take place in the course thereof. Therefore, it is critical that the involved public safety agencies have complete control over the radio resources available to them so as to be able to redirect them from the practice exercise to the real response. The Commission's Public Safety Broadband Proposal simply does not make provision for any local control over the broadband network proposed and relegates public safety agencies to mere user status on a fee for service basis.

The problem of control over radio resources is, of course, broader than the problem of the management of practice exercises of emergency response plans. Public safety practice has reflected a long-standing concern for control over the operations and maintenance of radio communications networks upon which reliance is placed in emergencies. This broader concern and its affect upon adoption by public safety agencies of a fee for service arrangement without control are addressed in several places later in the RCC Comments, including the next section.

The Ninth NPRM is explicit in providing a very circumscribed role, if any, for local public safety users in relation to the management and operation of the proposed national public safety broadband network. (See, for example: Ninth NPRM ¶ 44.)

9. The Commission has not addressed either the differences in technical standards between public safety radio systems and commercial radio systems or the problem of public safety technical standards' not being met and maintained.

For public safety agencies to have sufficient confidence in radio communications networks to rely upon them in emergencies, public safety agencies have to be sure that the radio systems are built and in accordance with their own often very exacting technical standards which are often materially more exacting than the standards generally applicable to commercial radio networks.

Public safety agencies' own specification of their networks has been the means by which, conventionally, that confidence has been built. The Commission has not addressed, except in the most general terms, the need for any public safety radio network to meet public safety standards. The need, under the Commission's Public Safety Broadband Proposal for the involvement of one or more commercial service providers does not provide assurance that public safety standards will be met.

The profit motive of the commercial service providers must at some point necessarily conflict with the standards of public safety agencies, and that conflict is not easily resolved. Any accession of the commercial service provider to public safety standards will necessarily be accompanied by higher fees for service, and the Commission provides no clear mechanism to assure that:

- public safety standards are, in fact, met; and
- the consequences of meeting such standards in terms of their effect upon fees for service are reasonable and non-discriminatory.

It is, moreover, far from clear than any such mechanism can be established, and, in the absence thereof, the development of the requisite level of confidence in the national public safety broadband network proposed seems quite uncertain and problematic.

While the Commission doubtless views the Commission's Public Safety Broadband Proposal as subject to comment and revision, it is far from clear that such a process can assure anywhere near universal confidence in the proposed national public safety broadband network over any reasonable period of time. During the period before such confidence develops, if ever, the failure of the system to meet public safety standards could assure that such confidence never develops.

It does not appear from the Ninth NPRM that the Commission's attention has been sufficiently drawn to these concerns.

10. The Commission has not addressed maintenance standards and network recovery requirements,

For public safety agencies to have sufficient confidence in radio communications networks to rely upon them in emergencies, public safety agencies have to be sure that the radio systems are built and maintained in accordance with their own often very exacting operations and maintenance standards. Conventionally, that confidence has been built upon the agencies' own direct control of the radio systems upon which they rely. The rather mixed history of the performance of public networks under stressful conditions has reinforced the inclination of public safety agencies toward control of the radio systems upon which they rely.

Although, as noted above, the Commission has itself undertaken responsibility for establishing "performance requirements for interoperability, build out, preemptibility of commercial access, and system robustness" (Ninth NPRM at ¶ 4), it may be quite some time before the requisite level of confidence is, if ever, developed by public safety agencies toward the proposed national public safety broadband network.

The development of the requisite level of confidence is not accelerated by either:

- the complete lack of specificity on the part of the Commission in relation to the standards it proposes to apply; and

- the complete absence of specific discussion on the part of the Commission of maintenance standards, response times to remedy network or site outages, or related matters.

While the Commission doubtless views the Commission's Public Safety Broadband Proposal as subject to comment and revision, it is far from clear that such a process can assure anywhere near universal confidence in the proposed national public safety broadband network over any reasonable period of time. During the period before such confidence develops, if ever, poor performance of the network could assure that such confidence never develops.

It does not appear from the Ninth NPRM that the Commission's attention has been sufficiently drawn to these concerns.

11. The Commission has not addressed the absence of operational alternatives for public safety agencies which have requirements not met by the national public safety broadband network proposed.

The Ninth NPRM incorporates one rather fundamental flaw in that it fails in any manner to address that fact that the Commission's Public safety Broadband Proposal excludes essentially all wideband or broadband alternative development paths for those public safety agencies for which the national public safety broadband network proposed is unsatisfactory whether by reason of inadequate coverage, inadequate performance, or otherwise.

This flaw is essentially irremediable because the Ninth NPRM dedicates all available 700 MHz public safety wideband and broadband spectrum to the national network. Therefore, public safety agencies not served by the national network shall not otherwise be served by broadband or wideband interoperability networks.

This failure to provide for alternatives is not limited to the problem of the unsatisfied public safety agency, but, rather, also shows up in another form, *i.e.*, excessive dependency upon a single network, which is considered later in the RCC Comments.

B. The Commission's Public Safety Broadband Proposal is not based upon a sound technical foundation.

In this Section IV.B of the RCC Comments, RCC sets forth the bases for the conclusion that the Commission's Public Safety Broadband Proposal is not based upon a sound technical foundation. RCC grounds that conclusion in seven analyses and related constituent conclusions as follows:

- *The proposal is vulnerable to the unavailability of properly functioning cognitive radios;*
- *The Commission's requirement of an IP-based architecture is not a self-executing specification;*
- *The Commission's exclusion of wideband systems will result in coverage sacrifice or cost increases or both;*
- *The Commission's licensing the 700 MHz spectrum dedicated to narrowband to the national licensee on a secondary basis is technically flawed;*
- *The Commission has not addressed the undeveloped state of interoperability for data;*
- *The Commission has not addressed the technical vulnerability implicit in all public safety agencies relying upon one broadband network for their interoperability requirements; and*

- *The Commission has not addressed the consequences of public safety agencies choosing not to integrate their operations with the national public safety broadband network proposed or choosing not to monitor the transmissions made thereon.*

Each of those analyses is the subject of one of the sub-sections of the RCC Comments which follows (Part IV.B.1-7).

1. The proposal is vulnerable to the unavailability of properly functioning cognitive radios.

As explained above, the totality of the Commission's Public Safety Broadband Proposal rests upon the availability of properly functioning cognitive radios, a condition which is not presently satisfied and as to the satisfaction of which there is a certain degree of doubt. The dependence of the future of all public safety broadband communications upon an uncertain technical development seems unwise and a certain source of implementation delay at the very least.

In the interim, all implementations of 700 MHz public safety broadband technologies not subject to that dependency will be prohibited by reason of the monopoly thereof conferred upon the national licensee.

2. The Commission's requirement of an IP-based architecture is not a self-executing specification.

In the Ninth NPRM, the Commission makes several references to the utilization of modern IP-based architecture in the national public safety broadband network proposed. (See, for examples: Ninth NPRM ¶¶ 18 and 32.)

The problem is not with modern IP-based architecture, but rather with the fact that the declaration for such architecture is not remotely close to an effective technical specification of the architecture for the architecture of a real working system. The shortcoming of a mere declaration is both apparent and indicative of just how much real work remains before the Commission's Public Safety Broadband Proposal could be capable of implementation.

This issue begs the further question, discussed later in the RCC Comments, whether the national licensee, as describer by the Commission in the Ninth NPRM, would be capable of participating effectively in the development and review of the required specification.

3. The Commission's exclusion of wideband systems will result in coverage sacrifice or cost increases or both.

In the Ninth NPRM, the Commission heaps praise on the capabilities of broadband communications for public safety. (See, for example: Ninth NPRM ¶ 12.) The problem is not with the capabilities of broadband when needed, but rather with the costs of broadband when not required. Broadband networks are one or more orders of magnitude more expensive to deploy than wideband network when comparison is made on cost per square mile of coverage provided.

While broadband networks will clearly be required by some, perhaps many, public safety agencies, such networks will not be required by all such agencies at any time in the near future. Therefore, the 'national' build-out of a public safety broadband network in the near future has an undeniable element of extravagance which must in turn express itself in higher fees for service and very likely a less comprehensive coverage area so as to minimize construction costs as required by the practical limitations upon project funding.

The 'national' public safety broadband network proposed may, therefore, be 'national' in its coverage, but not provide effective local coverage for public safety purposes, a condition often reflected in commercial networks.

In addition, the fees for service may be quite unattractive to potential public safety users of wideband or broadband service when those fees are set to recover the costs of developing a network with greater capabilities than are required for all potential users, especially where, as is likely, early universal adoption by public safety agencies seems inconceivable.

4. The Commission's licensing the 700 MHz spectrum dedicated to narrowband to the national licensee on a secondary basis is technically flawed.

In paragraph 38 of the Ninth NPRM, the Commission proposes that "the national public safety broadband licensee would be permitted to operate on a secondary basis on the remaining 12 megahertz of public safety spectrum in the 700 MHz band, *i.e.*, the narrowband channels. By secondary we mean that the national public safety licensee (1) may not interfere with primary use; (2) must immediately remedy any interference it causes to primary uses at its own expense (or shut down the interfering use); and (3) must accept any interference it receives from primary uses that are operating in accord with their licenses. One way to ensure that existing uses are not impacted may be through the employment of advanced technologies, such as cognitive radios."

Given the critical nature of the communications of the primary licensees of the 12MHz of 700 MHz spectrum dedicated to narrowband communications and given that the three specified conditions of secondary use by the national licensee are not self-executing, the secondary use proposal creates the real danger of interference with narrowband users while the source of such interference is discussed and possibly disputed by the narrowband licensees and the national licensee.

The often painful and time-consuming process of interference resolution even under the application of best practices is very well known to public safety users and amply demonstrated by the interference issues arising in the 800 MHz band where best practices alone were deemed by the Commission insufficient to resolve interference issues.

Radiating substantial energy from a national broadband network into the narrowband spectrum with no present understanding of the possible effects thereof is, RCC respectfully submits, unwise and particularly so where no technical limitations for interference-reduction purposes

have been studied and adopted and where interference-reduction is made dependent upon "advanced technologies."

5. The Commission has not addressed the undeveloped state of interoperability for data.

As discussed above and as public safety comment in WT Docket No. 96-86 so clearly demonstrates, the meaning of interoperability in the context of wireless broadband data communications is in the very early stages of development and the application-dependency of such communications has not yet been fully integrated with the meaning of interoperability. The Commission's Public Safety Broadband Proposal does not take these matters into account and rests its concept of interoperability on the narrow and inadequate network level alone.

The development of the national 'interoperable' public safety broadband network proposed will not in and of itself provide real interoperability because of the application-dependency of effective data communications.

It is not clear that the focus upon a nationwide network-level solution for interoperability is a worthwhile goal by itself or that the gigantic expenditure of funds to achieve that result is wise at least until it is clear that such an undertaking will address the application-dependency of data interoperability and assure that truly required state, local, and regional interoperability across the nation is facilitated by the implementation of the national public safety broadband network proposed.

6. The Commission has not addressed the technical vulnerability implicit in all public safety agencies relying upon one broadband network for their interoperability requirements.

Public safety communications officials have long recognized the need for redundant and back-up communications technologies. The Commission's Public Safety Broadband Proposal by its monopolistic nature effectively deprives state, local, and regional public safety agencies of the opportunity to construct alternatives to the national public safety broadband network proposed. The creation of a dependency of safety agencies upon a single network is not truly balanced by the Commission's statements in the Ninth NPRM respecting network robustness, none of which are specific or mandatory. (See, for examples: Ninth NPRM ¶¶ 17 and 36.) RCC recognizes that the Commission is seeking comments with respect to robustness, but robustness is in the eye of the beholder, and robustness is not a complete substitute for redundancy.

The single network dependency implicit in the use of the national monopoly public safety broadband network proposed does not, RCC respectfully suggests, appear to be an issue of concern to the Commission because the Commission contemplates the expansion of that dependency in paragraph 39 of the Ninth NPRM where the Commission wrote:

> "We believe that permitting the national licensee to use narrowband public safety spectrum in the 700 MHz band on a secondary basis significantly could increase the

amount of spectrum available for broadband public safety use. Such secondary use also could provide a migration path for a gradual transition to the nationwide, interoperable, broadband public safety communications system from legacy narrowband systems. We anticipate that the national system can integrate voice and data capabilities into a single broadband communications network." (Emphasis supplied.)

The vulnerability implicit in this vision will not be appealing to public safety agencies which are highly unlikely ever to utilize a national public safety broadband network for primary voice communications when they have devoted such enormous resources to create voice networks that are truly optimized for their particular requirements and generally perform well.

7. The Commission has not addressed the consequences of public safety agencies choosing not to integrate their operations with the national public safety broadband network proposed or choosing not to monitor the transmissions made thereon.

The Commission's Public Safety Broadband Proposal includes a material "Field of Dreams" component: "Build it, and they will come." That proposal assumes that if a national public safety broadband network is built by a national monopolist and with little effective input from state, local, and regional public safety agencies, then, whatever may be the fee for service structure and whether or not that network truly meets public safety needs, public safety agencies will adopt the service available from the national licensee.

That approach is not assuredly successful. The Commission's Public Safety Broadband Proposal remains essentially voluntary from the standpoint of potential users, and those users may or may not choose to integrate their operations with the national network or even monitor traffic on the national network. Wherever the national network is not adopted, there will be no interoperability in practice.

The risks of limited adoption are inherent in the top-down approach of the Commission in the Ninth NPRM. By contrast, building up a national interoperability infrastructure from the bottom up would assure that the networks built were actually used.

RCC respectfully submits that the top-down approach of the Commission is not only fundamentally unwise, but also inconsistent with expressed public safety opinion and prior pronouncements of the Commission respecting state, local, and regional input with respect to interoperable networks.

C. The Commission's Public Safety Broadband Proposal is not based upon a sound commercial foundation.

In this Section IV.C of the RCC Comments, RCC sets forth the bases for the conclusion that the Commission's Public Safety Broadband Proposal is not based upon a sound commercial foundation. RCC grounds that conclusion in seven analyses and related constituent conclusions as follows:

- *The qualifications established for the national licensee do not assure its success in the development of a national public safety broadband network;*

- *The proposed national licensee is not, without major change, institutionally suited for the proper development of a national public safety broadband network proposed;*

- *The proposed national licensee cannot reasonably be expected to act effectively for the thousands of public safety agencies which are potential users of the national public safety broadband network proposed;*

- *Limitations of the proposed national licensee are inconsistent with the obligations imposed thereon by the Commission's Public Safety Broadband Proposal;*

- *Limitations placed upon the proposed national licensee by the Commission's Public Safety Broadband Proposal will materially impede the fulfillment of the licensee's imposed obligations;*

- *The national licensee will have at its disposal inadequate spectrum to make a commercial lease arrangement that would serve public safety interests; and*

- *The Commission's Public Safety Broadband Proposal may necessarily involve subsidies and other asymmetrical treatment of users that could imperil the adoption of the national public safety broadband network proposed.*

Each of those analyses is the subject of one of the sub-sections of the RCC Comments which follows (Part IV.C.1-7).

1. The qualifications established for the national licensee do not assure its success in the development of a national public safety broadband network

The Commission laid out its criteria for the choice of the national licensee in the Ninth NPRM as follows:

> "27. We envision that the national licensee would have many important responsibilities, including the design and implementation, build-out, and maintenance of the nationwide network, coordination of use by eligible local, state, and federal public safety agencies, and leasing excess capacity on an unconditional, preemptible basis to commercial users, including the discretion to terminate such commercial use when the interest of public safety so demands. As a consequence, we propose that selection of the national public safety broadband licensee should be based on a number of criteria, including experience with public safety frequency coordination, not-for-profit status, and ability to directly represent all public safety interests. We also propose that no commercial interest may be held in the national license or licensee, and that no commercial interest may participate in the management of the national licensee. We seek comment on these and any other criteria that would be appropriate to ensure that the

national licensee is able and qualified to adequately address the needs of all public safety users." (Emphasis supplied.)

The qualifications desired by the Commission for the national licensee are, RCC respectfully submits inadequate to assure the success of the national licensee in the design, development, implementation, and negotiation respecting the national broadband network proposed.

Neither experience with public safety frequency coordination nor not-for-profit status, nor the ability to directly represent all public safety interests is directed to the qualifications of the national licensee that would enable the national licensee to fulfill its "many important responsibilities, including the design and implementation, build-out, and maintenance of the nationwide network, coordination of use by eligible local, state, and federal public safety agencies, and leasing excess capacity on an unconditional, preemptible basis to commercial users, including the discretion to terminate such commercial use when the interest of public safety so demands."

RCC respectfully submits that the Commission's statement of qualifications for the national licensee does not even begin to address the qualifications needed to carry out the indicated responsibilities. For the success of a project of the magnitude of the Commission's Public Safety Broadband Proposal, substantial operational, technical, and commercial expertise is required, and no serious provision is made therefor in the Ninth NPRM.

2. The proposed national licensee is not, without major change, institutionally suited for the proper development of a national public safety broadband network proposed.

The designation of a not-for-profit organization with frequency coordination experience and the ability to represent public safety interests imports institutional shortcomings inconsistent with the successful implementation of the Commission's Public Safety Broadband Proposal. A not-for-profit organization does not naturally include management, measurement, performance incentives, and procurement policies that are critical to a major network deployment. Without those qualifications and capabilities, the likely method of network implementation will be inadequately supervised outsourcing. The consequences of inadequately supervised outsourcing do not require elaboration.

3. The proposed national licensee cannot be reasonable expected to act effectively for the thousands of public safety agencies which are potential users of the national public safety broadband network proposed.

The Commission's requirement that the qualifications of the national licensee include the "ability to directly represent all public safety interests" (Ninth NPRM at ¶ 27) seems unobjectionable at first glance, but is, upon analysis simply unachievable. The organization chosen to be the licensee may well be able to represent the common interests of public safety agencies effectively, but can never represent all public safety interests when those interests are in conflict.

Conflict of public safety interests is inevitable in the implementation of the Commission's Public Safety Broadband Proposal and will certainly arise over matters concerning build-out schedule

between areas, relative investment between areas, differences over technology choices, and other critical issues.

RCC respectfully submits that the Commission has failed to recognize the impossible expectations of the national licensee, and it is far from clear that any potential licensee would want to place the effectiveness of its representation of the common interests of public safety at risk by undertaking a task that would require that organization to choose between the wishes of public safety agencies with differing interests.

This weakness in the commercial foundation of the Commission's Public Safety Broadband Proposal cannot be overcome by the employment of a governance process or conflict avoidance policies because choices are essential in the top-down approach adopted by the Commission and can, RCC believes, only be avoided by a bottom-up integration of a national network from state, local, and regional networks launched without conflict or with conflicts resolved at the state or regional level through the RPCs or otherwise.

4. Limitations of the proposed national licensee are inconsistent with the obligations imposed thereon by the Commission's Public Safety Broadband Proposal.

The members of the class of organizations which could meet the qualifications of the Commission for the national licensee will not likely have the financial resources and management and technical depth necessary for the successful implementation of the Commission's Public Safety Broadband Proposal and will not likely be able to supplement its capabilities on a timely basis.

The implementation of the Commission's Public Safety Broadband Proposal would, if undertaken by an established carrier, involve years of planning by a substantial staff before a shovel was first placed in the ground and long before the first dollar of revenue was received. How will a not-for-profit organization be able to fund the required activities before revenue develops? How much revenue will actually flow to the national licensee and when? These questions are fundamental, but are in no manner addressed by the Commission in the Ninth NPRM.

The Commission does discuss revenue and revenue sharing once the network is implemented, but does not discuss sustaining the national licensee in the planning and implementation phases of the project.

The weakness of the national licensee in this respect will provide another impulse toward inadequately supervised outsourcing, and that weakness will likely materially adversely affect the terms negotiated with the party or parties (presumably commercial service providers) to the detriment of the interests of public safety.

Anyone involved in the 800 MHz Rebanding is aware of the disparity in negotiating power between Sprint Nextel Corporation ("Nextel") and individual public safety licensees and the adverse consequences of the negotiating advantages of Nextel to public safety licensees. The

inherent weakness of the national 700 MHz licensee is a clear warning that the Commission's expectations for the Commission's Public Safety Broadband Proposal may not nearly be met on account of that weakness.

5. Limitations placed upon the proposed national licensee by the Commission's Public Safety Broadband Proposal will materially impede the fulfillment of the licensee's imposed obligations.

The weakness of the national licensee is reinforced by certain positions taken, without explanation, by the Commission. Thus, for example, in paragraph 27 of the Ninth NPRM, the Commission "propose[s] that no commercial interest may be held in the national license or licensee, and that no commercial interest may participate in the management of the national licensee." The limitation thus placed upon the ability of the national licensee to compensate for certain of its weaknesses and limitations both:

- Serves to maintain without remediation the inherent weaknesses and limitations of the national licensee; and

- Raises the question whether the national licensee concept as described by the Commission is inherently flawed if:

    - the prohibition against commercial involvement is truly required by Commission policy; and

    - the national licensee cannot alone shoulder the responsibilities placed thereon by the Commission.

6. The national licensee will have at its disposal inadequate spectrum to make a commercial lease arrangement that would serve public safety interests.

The Commission does not address directly whether 12 MHz of spectrum on a secondary basis and subject to unconditional preemption of access is adequate to attract a commercial spectrum lessee which would have to compete with commercial licensees with access to significantly more spectrum. The Commission does indirectly imply that 12 MHz would not be adequate because the Commission's Public Safety Broadband Plan apparently authorizes the use of the 12 MHz of 700 MHz narrowband spectrum for public safety broadband use on a secondary basis and, presumably, commercial use on a tertiary basis. (In this connection, see: Ninth NPRM at ¶¶ 38-40.) There still remains a very serious question whether the availability of 12 MHz on a secondary basis and 12 MHz on a tertiary basis is sufficient to attract a commercial spectrum lessee on terms that would be advantageous to the interests of public safety.

7. The Commission's Public Safety Broadband Proposal may necessarily involve subsidies and other asymmetrical treatment of users that could imperil the adoption of the national public safety broadband network proposed.

The building of any national network involves building costs that are far from uniform when measured in cost of deployment as a function of population density. Areas of low population density will at the same levels of coverage be more expensive than areas of high population density. The consequences of this observation are that:

- If the fees for service are uniform across the country, there is an implicit subsidy of the low population density areas by the high population density areas;

- If the fees for service directly reflect building costs, them fees for service may be beyond the reach of public safety agencies in those areas (where broadband networks would never likely be built by those agencies which, if they required high-speed data, would likely have implemented wideband networks as more cost effective from their standpoint as they provide more coverage per dollar of infrastructure [at the expense of throughput]); and

- Any tariff proposed by the national licensee or its commercial lessee will likely give rise to conflicts between public safety agencies and the national licensee or its lessee and between public safety agencies concerned with cost subsidization.

It is not clear to RCC whether the Commission has considered these issues and solutions therefor which might involve the administrative burdens associated with a universal service fund or like mechanism.

In any event, concerns of public safety agencies with respect to the fairness and equity of the applicable tariff could easily defer adoption of the national network proposed.

D. The Commission's Public Safety Broadband Proposal relies upon material unproven assumptions.

In this Section IV.D of the RCC Comments, RCC explains its conclusion that the Commission's Public Safety Broadband Proposal relies upon untested and not necessarily proper assumptions. RCC grounds that conclusion in seven analyses and related constituent conclusions as follows:

- *The Commission optimistically assumes that funding for the Commission's Public Safety Broadband Proposal will be made available upon terms that promote the development of interoperability;*

- *The Commission assumes the commercial success of the Commission's Public Safety Broadband Proposal and the national licensee's commercial service provider partner and does not consider or make provision for failure;*

- *The Commission optimistically assumes that the fee for service rates will be fair, reasonable, and attractive to public safety agencies and provides no mechanism for change if those rates do not attract users;*

- *The Commission optimistically assumes the universal adoption of service from the national licensee and does not consider that the failure of universal adoption will fundamentally undermine the national character of the public safety broadband network proposed;*

- *The Commission optimistically assumes the viability of the public private partnership model in meeting the needs of public safety and does not consider the evidence to the contrary;*

- *The Commission makes very optimistic assumptions about cost savings without examining the bases therefor; and*

- *The Commission assumes without warrant that no regulatory framework is required for the operations of the national licensee and the national public safety broadband network proposed.*

Each of those analyses is the subject of one of the sub-sections of the RCC Comments which follows (Part IV.D.1-7).

1. The Commission optimistically assumes that funding for the Commission's Public Safety Broadband Proposal will be made available upon terms that promote the development of ubiquitous interoperability.

Although the Commission seeks to indicate possible sources of funding for the Commission's Public Safety Broadband Proposal, no serious effort is made either to

- measure the level of required funding; or

- the adequacy of available funds. (In this connection, see: Ninth NPRM at ¶¶ 28-30.)

RCC respectfully submits that it is remarkable that the Commission's Public Safety Broadband Proposal has been aired apparently without there having been detailed modeling of the financial requirements of the project and detailed analysis of the ability to finance the project. The essentially un-commercial nature of that approach provides not even cold comfort with respect to the project's feasibility.

The Commission simply assumes project feasibility and seems prepared to license a national network without reasonable assurance that the network can as a commercial matter be built.

No commercial carrier would ever embark on the implementation of a national network without intensive feasibility analysis, modeling, and testing of the finance community's view of the undertaking. In RCC's view, the possible commercial spectrum licensees will make such

analyses, undertake such modeling, and obtain financial input before committing to any arrangement. How is it that the Commission would commit to national licensing without corresponding commercial validation?

2. The Commission assumes the commercial success of the Commission's Public Safety Broadband Proposal and the national licensee's commercial service provider partner and does not consider or make provision for failure.

Not only does the Commission assume the financial feasibility of the implementation of the Commission's Public Safety Broadband Proposal, but also assumes the post-implementation financial success of the project. No experienced commercial person would assume without analysis the success of the Commission's Public Safety Broadband Proposal or consider the implementation thereof without addressing the consequences of financial failure.

The Commission neither discloses analyses in support of the conclusion of project success nor makes provision for the possibility of financial failure. In consequence, the Commission leaves unanswered:

- How public safety users will receive service if the project is a financial failure and network operations cease;
- What will happen to the network assets in the event of financial failure;
- Whether users will have the ability to take over network operations on a local basis or otherwise in the event of financial failure of the project;
- Whether creditors' liens on network infrastructure will permit dismemberment of the network;
- How the investment of public safety agencies in mobile broadband equipment will be protected in the event of the financial failure of the network; and
- Most fundamentally, how the protection of life, health, and property will be supported in the event that the network ceases operations.

Enthusiasm for broadband communications or for the Commission's Public Safety Broadband Proposal does not itself provide answers to these critical questions.

3. The Commission optimistically assumes that the fee for service rates will be fair, reasonable, and attractive to public safety agencies and provides no mechanism for change if those rates do not attract users.

The Commission simply assumes that the fee for service rates will be fair, reasonable, and attractive to public safety agencies and provides no mechanism for change if those rates do not attract users. No attention is paid by the Commission to the possibility, the quite real possibility, that its optimistic assumption will not be borne out. This observation surely suggests that the

Commission's Public Safety Broadband Proposal is not adequately developed to support an implementation decision.

4. The Commission optimistically assumes the universal adoption of service from the national licensee and does not consider that the failure of universal adoption will fundamentally undermine the national character of the public safety broadband network proposed.

The Commission simply assumes that the universal adoption of service from the national licensee and does not consider that the failure of universal adoption will fundamentally undermine the national character of the public safety broadband network proposed. No attention is paid by the Commission to the possibility, the quite real possibility, that its optimistic assumption will not be borne out. Without near-universal adoption, the promise of national interoperability becomes illusory. This observation surely suggests that the Commission's Public Safety Broadband Proposal is not adequately developed to support an implementation decision.

5. The Commission optimistically assumes the viability of the public private partnership model in meeting the needs of public safety and does not consider the evidence to the contrary.

The Commission simply assumes the viability of the public private partnership model in meeting the needs of public safety and does not consider the evidence to the contrary. The largest currently-ongoing public private 'partnership' affecting public safety is the 800 MHz Rebanding, and no person experienced therewith can seriously claim that the process has been smooth, quick, or trouble-free. No attention is paid by the Commission to the possibility, the quite real possibility, that its optimistic assumption (that the public private partnership implicit in the Commission's Public Safety Broadband Proposal will result in rapid deployment, attractive commercial terms, and smooth operations) will not be borne out. This observation surely suggests that the Commission's Public Safety Broadband Proposal is not adequately developed to support an implementation decision.

6. The Commission makes very optimistic assumptions about cost savings without examining the bases therefor.

The Commission simply assumes that cost savings can be achieved through the implementation of the Commission's Public Safety Broadband Proposal, but offers only high-level generalities in support of that assumption. (In this connection, see: Ninth NPRM at ¶ 15.) This absence of analysis reflects the broader un-commercial nature of the Commission's Public Safety Broadband Proposal that has been examined already in the RCC Comments. No attention is paid by the Commission to the possibility, the quite real possibility, that a national broadband implementation for public safety may not be cost effective, particularly in areas of low population density or without need for broadband communications. This observation surely suggests that the Commission's Public Safety Broadband Proposal is not adequately developed to support an implementation decision.

7. The Commission assumes without warrant that no regulatory framework is required for the operations of the national licensee and the national public safety broadband network proposed.

RCC respectfully submits that unregulated monopoly is a concept foreign to American practice, and yet the Commission's Public Safety Broadband Proposal creates a monopoly and makes no provision for its on-going regulation. Implicit in this approach is the Commission's unsupported assumption that no regulatory framework is required for the operations of the national licensee and the national public safety broadband network proposed, notwithstanding the fact that a monopoly is created. This observation surely suggests that the Commission's Public Safety Broadband Proposal is not adequately developed to support an implementation decision.

E. The Commission's Public Safety Broadband Proposal is unlikely to meet the objectives set by the Commission therefor.

In the Ninth NPRM, the Commission identified seven "objectives" for the Commission's Public Safety Broadband Proposal. The titles of those stated objectives are set forth below:

- "Broadband";
- "Nationwide Interoperability";
- "Adequate Funding";
- "Cost Effectiveness";
- "Efficient Spectrum Use";
- "Robustness"; and
- "Flexible Modern Architecture."

In the seven subsections (Part IV.E.1-7) that follow, RCC considers each of those objectives and the likelihood of the achievement thereof by the adoption of the Commission's Public Safety Broadband Proposal and, RCC respectfully submits, demonstrates the Commission's objectives are unlikely to be achieved.

1. Broadband

The Commission's "Broadband" objective is set forth in the Ninth NPRM as follows:

> *"12. Broadband.* Presently, there is no allocation in the 700 MHz public safety band for broadband communications. Broadband technologies hold the potential to provide public safety entities integrated access to voice and high-speed data capabilities, and thus may dramatically reduce the time it takes to access information during

emergencies. We believe that we should maximize opportunities for broadband use of 700 MHz spectrum due to the many benefits of broadband communications, including video surveillance, real-time text messaging and email, high resolution digital images and the ability to obtain location and status information of personnel and equipment in the field. For example, police officers could exchange mug shots, fingerprints, photographic identification, and enforcement records; firefighters could have access to floor and building plans and real-time medical information; forensic experts could provide high resolution photographs of crime scenes and real-time video monitoring transmitted to incident command centers."

The desirability to many public safety agencies of broadband communications capability is no basis for concluding that the Commission's Public Safety Broadband Proposal is the most effective approach to providing such broadband capability where needed. For the reasons heretofore stated in the RCC Comments, there are many bases for concluding that the Commission's Public Safety Broadband Proposal is, in fact, not the most effective approach to providing such broadband capability.

2. Nationwide Interoperability

The Commission's "Nationwide Interoperability" objective is set forth in the Ninth NPRM as follows:

> "*13. Nationwide Interoperability*. All emergency personnel involved in an incident need to be able to communicate seamlessly. The availability of a nationwide, interoperable, broadband communications network for public safety substantially could enhance the ability of public safety entities to respond to emergency situations, whether due to severe weather events or criminal or terrorist activities, and likely would save lives and preserve property. Yet, only 2.6 megahertz is designated for nationwide interoperable communications in the 700 MHz public safety band. Furthermore, the radios used by federal, state and local first responders generally are not interoperable. Instead, the highly fragmented structure of public safety agencies, whether among different public safety agencies serving the same community (*i.e.*, local police, fire, emergency medical), neighboring communities or states, or among local, state, and federal levels, has resulted in many different and distinct communications infrastructures. As a consequence, public safety personnel often must carry multiple radios to coordinate their activities. Even when some interoperability is reached on a regional level,[111] there still is a lack of nationwide interoperability."

The desirability of nationwide interoperability depends upon the meaning of "nationwide interoperability." The ability to have any public safety radio anywhere in the county be able to communicate with any other radio is facially attractive, but not necessarily compelling given the rarity of incidents requiring a nationwide response and the ability to coordinate communications for incoming providers of assistance at the site of the incident by means other than a nationwide network. The ability to ensure effective interoperability on a state, local, and regional basis is far more compelling and more closely addresses the needs of first responders who are drawn from

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"[111] *See supra* note 11." (Footnote renumbered.)

state, local, and regional public safety agencies rather than from agencies remote from the site of the incident.

The Commission's Public Safety Broadband Proposal supports interoperability of the 'any radio anywhere' type, but does not take into account the limitations placed upon any radio anywhere interoperability by the likely absence of shared data applications.

The Commission's Public Safety Broadband Proposal does not provide effective support to the development of state, local, and regional interoperability for all of the reasons heretofore expressed in the RCC Comments.

3. Adequate Funding

The Commission's "Adequate Funding" objective is set forth in the Ninth NPRM as follows:

> "*14. Adequate Funding*. Any proposal for improving public safety communications should address potential new sources of funding. Traditionally, public safety agencies have had great difficulty funding the build-out and operation of modern communications systems. None of the other objectives of a public safety communications system can be met without adequate funding."

The criticality of adequate funding for the development of effective interoperability across the nation is indisputable, but that conclusion does not compel the further conclusion that adequate funding will be available for the Commission's Public Safety Broadband Proposal. For the reasons heretofore stated in the RCC Comments, there are many bases for concluding that the availability of adequate funding for the Commission's Public Safety Broadband Proposal is, at the very least, unproven and very likely problematic.

4. Cost Effectiveness

The Commission's "Cost Effectiveness" objective is set forth in the Ninth NPRM as follows:

> "*15. Cost Effectiveness*. Public safety services should be provided at the least cost given the characteristics, *e.g.*, capacity, reliability and coverage, of services provided. Economies of scale and scope in production and competition in supply are important in achieving cost effectiveness. Also of importance is the ability to continually evolve technologically and incorporate new capabilities, while preserving backward compatibility and interoperability with subscriber units in the field."

The attractiveness of cost effectiveness in the development of effective broadband capability is not subject to challenge, but that conclusion is not evidence in support of the further conclusion that the Commission's Public Safety Broadband Proposal is a cost effective approach. For the reasons heretofore stated in the RCC Comments, there are many bases for concluding that the Commission's Public Safety Broadband Proposal is not, in fact, a cost effective approach as it requires very expensive network implementation in areas where broadband capability is not required and may well be prohibitively expensive to provide.

While the Commission has sought to identify possible sources of cost savings (Ninth NPRM at

¶¶ 22-24), the Commission's discussion of cost effectiveness does not address the fundamental question whether a national public safety broadband network is itself a cost effective concept or a very expensive approach to providing capabilities neither needed or affordable in certain areas of the country.

5. Efficient Spectrum Use

The Commission's "Efficient Spectrum Use" objective is set forth in the Ninth NPRM as follows:

> "*16. Efficient Spectrum Use*. Public safety communications systems should be spectrum-efficient. Public safety services should use spectrum efficient technologies that appropriately reflect the value of spectrum. For example, public safety providers could increase capacity through improvements in infrastructure when it is less costly than adding spectrum. The high spectrum efficiency observed in the production of CMRS could be a benchmark for public safety."

If, as seems likely, broadband capability is neither needed nor able to be affordably provided uniformly across the nation, then the Commission's Public Safety Broadband Proposal is the antithesis of spectrum efficiency rather than the fountain thereof.

6. Robustness

The Commission's "Robustness" objective is set forth in the Ninth NPRM as follows:

> "*17. Robustness*. Survivability is an important objective of the envisioned nationwide public safety broadband system. The widespread destruction caused by Hurricane Katrina illustrated the vulnerability of the terrestrial communications infrastructure to natural disasters, as well as similarly destructive terrorist attacks. When a disaster destroys the terrestrial infrastructure, public safety workers can be left without any communications. The system could be inherently robust by incorporating flexible routing and other features (possibly including a satellite component operating in other spectrum) that will maintain essential operations when parts of the infrastructure have been destroyed or disabled."

The necessity for robustness in public safety networks is not subject to question, but discussion of requirements for robustness in the absence of the modeling of the costs of network implementation and operation is no more than theoretical unless those requirements are decreed without regard to whether funds could ever be made available to meet those requirements. With doubt outstanding respecting the financial viability of the Commission's Public Safety Broadband Proposal, consideration of the tendency of that proposal to provide for an adequately robust network seems premature.

While the Commission has sought to identify possible paths to network robustness (Ninth NPRM at ¶¶ 43-44), the financial feasibility of the implementation of any of those approaches remains unanalyzed.

7. Flexible Modern Architecture

The Commission's "Flexible Modern Architecture" objective is set forth in the Ninth NPRM as follows:

> *"18. Flexible Modern Architecture*. A public safety communications network employing modern IP-based wireless system architecture may have many advantages in terms of flexibility, cost and compatibility with the existing IP-based networks. An IP-based broadband wireless public safety system also readily could be integrated with legacy public safety and other wireless non-IP systems. IP-based architecture provides great flexibility in combining multiple services, *e.g.* voice, data and video, on a common infrastructure and into the same device."

For the reasons heretofore stated in the RCC Comments, the contribution, if any, of the Commission's Public Safety Broadband Proposal to the employment of flexible modern architecture cannot be assessed because the relevant requirements for and specification of network architecture have not be adequately developed. However, there is no present basis for believing that that proposal could make a greater contribution than other approaches to the provision of broadband capabilities.

F. Conclusion: The Commission's Public Safety Broadband Proposal is clearly unwise, likely unworkable, and deeply problematic

RCC respectfully submits that it has in this Part IV of the RCC Comments demonstrated that the Commission's Public Safety Broadband Proposal is so:

- Unwise,
- unworkable, and
- fraught with uncertainties, problems, and the potential for conflict and other adverse developments,

that its ability to produce the benefits intended by the Commission to be created thereby is doubtful at best.

In Part V of the RCC Comments which follows, RCC respectfully sets forth for consideration by the Commission proposed principles for:

- the development of wideband and broadband public safety networks in the 700 MHz band; and
- the maintenance of interoperability among those networks.

V. The Principles Suggested for the Development of Wideband and Broadband Public Safety Networks in the 700 MHz Band and for the Maintenance of Interoperability among those Networks

In this Section V, RCC offers certain principles which may be helpful to the Commission in establishing a framework for the development of wideband and broadband public safety networks in the 700 MHz band and for the maintenance of interoperability among those networks.

A. The Commission should withdraw the Commission's Public Safety Broadband Proposal and offer a new plan within the frame work established by 47 U.S.C. §337 and the policy concerns of the Commission.

From its earliest pronouncements in WT Docket 96-86, the Commission has been concerned with the establishment of a framework for the use of the 700 MHz band for public safety services. Thus, for example, In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *First Report and Order and Third Notice of Proposed Rule Making*, 14 FCC Rcd 152 (Released September 29, 1998), the first substantive decision issued by the Commission in the above-entitled docket, the Commission wrote:

> "5. We believe that the rules adopted and proposed herein provide a regulatory framework that meets Congress' goals. Specifically, the *First Report* and *Third Notice* provides a structure to: (1) enable the development of a national interoperability plan; (2) allow Regional Planning Committees (RPCs) maximum flexibility to meet state and local needs, encourage innovative use of the spectrum, and accommodate new and as yet unanticipated developments in technology and equipment; (3) provide the spectrum management and planning mechanisms necessary to develop multiple user public safety communications systems and local and regional interoperability systems that effectively incorporate all public safety services providers; (4) adopt licensing rules for eligibility, permissible use, and coordinated spectrum planning for the 700 MHz band; and (5) adopt such competitively neutral technical standards as are required to efficiently achieve interoperability in designated spectrum.
>
> "6. By establishing a flexible regulatory framework for public safety use of the 700 MHz band, we seek to enable public safety organizations to effectively use this new allocation for a variety of operational modes (voice, data, image/high speed data (HSD), and video), to promote competition in the equipment markets through flexible technical standards, and to promote development of innovative public safety technologies. After careful consideration of the comments in this proceeding, we adopt a band plan for the new public safety allocation in the 700 MHz band that we believe will best achieve these goals. This band plan is supported by a direct outgrowth of the record and will provide some technical features common to the entire band, while allowing local public safety entities, through RPCs, the discretion to configure channels to meet their individual needs. We believe that this band plan strikes an appropriate balance between the standardization necessary to achieve nationwide interoperability, the development of competitive equipment markets, and the degree of regional flexibility necessary to allow

entities the opportunity to fashion approaches tailored to meet the individual needs of diverse regional communities." (Footnotes omitted; and emphasis supplied.)

RCC respectfully submits that the Commission was on a proper course when it adopted the *First Report and Order and Third Notice of Proposed Rule Making* and remained substantially thereon until the Ninth NPRM which, for the reasons stated above:

- conflicts with the requirements of 47 U.S.C. §337;
- departs from the Commission's prior, and proper, trajectory in WT Docket 96-86 and from the weight of opinion in the public safety community; and
- unwisely promulgates the Commission's Public Safety Broadband Proposal.

RCC further respectfully submits that a course correction is possible and that the outlines of such a course correction can best be found in adherence to the applicable statutory requirements and the fundamentals of the policy issues raised by the Commission prior to the issuance of the Ninth NPRM. In sum and in substance, RCC believes that:

> ***Although the Commission's Public Safety Broadband Proposal does not fit within the statutory framework of 47 U.S.C. §337(a)(1) and (f)(1), a policy framework that is at once consistent with both:***
>
> - ***the statutory requirements of 47 U.S.C. §337; and***
> - ***the policy concerns of the Commission***
>
> ***can be developed by means of a rebalancing of certain judgments made by the Commission in the Ninth NPRM and a return of the balance to a position closer to that reflected in both:***
>
> - ***the earlier pronouncements of the Commission in WT Docket 96-86; and***
> - ***the weight of public safety opinion.***

RCC makes certain suggestions with respect to the desirable policy framework in the balance of this Part V of the RCC Comments.

> ***B. 47 U.S.C. §337(a)(1) and (f)(1) preclude, as a matter of law and of practicality, the use of a single national licensee to achieve the policy goals of the Commission in relation to high bandwidth networks and national interoperability for public safety.***

Because:

- under 47 U.S.C. §337(a)(1) and (f)(1)(B), public safety services are by definition limited by the requirement that such services be provided by (i) by State or local government entities; or (ii) by nongovernmental organizations that are authorized by a governmental

entity whose primary mission is the provision of such services, and

- no state or local government entity has national reach,

it follows that no national license for public safety spectrum subject to 47 U.S.C. §337(a)(1) can be granted.

The possibility that a national license could be granted upon the basis of an authorization under 47 U.S.C. §(f)(1)(B)(i) is precluded in law by the fact that any fair reading of the statute would prevent any qualifying government entity from providing any authorization to a nongovernmental agency that is greater in scope than the license that the entity could itself obtain. Surely, 47 U.S.C. §(f)(1)(B)(i) cannot be read as enabling a Vermont governmental entity to authorize a nongovernmental entity to secure a 700 MHz license in Alabama.

It follows, therefore, that without authorization from most, if not all, qualifying governmental entities in the nation, no national authorization can be aggregated by a single nongovernmental entity.

The legal preclusion of the grant of a national 700 MHz license is reinforced by the practical considerations made evident in the Commission's discussion of the limitations upon the effectiveness of authorizations by qualifying governmental entities to nongovernmental entities.

In the Matter of the Development of Operational, Technical, and Spectrum Requirements for Meeting Federal, State, and Local Public Safety Agency Communication Requirements Through the Year 2010 (WT Docket 96-86), *First Report and Order and Third Notice of Proposed Rule Making*, 14 FCC Rcd 152 (Released September 29, 1998) involved, among other matters, the limitations upon and the requirements for authorizations of nongovernmental entities to utilize 700 MHz public safety spectrum. The Commission there wrote as follows:

> "56. Thus, we conclude, based on the definition in the 1997 Budget Act for 'public safety services,' that NGOs are eligible for licensing in the 700 MHz band when expressly authorized by a state or local governmental entity whose mission is the oversight of or provision of such services. To implement this provision of the statute, NGO applicants must submit a written statement by the state or local governmental entity that is authorizing the NGO to use 700 MHz band spectrum, and the authorizing state or local governmental entity's authorization must certify that its mission includes oversight of or responsibility for providing public safety services. An NGO Neighborhood Watch, for example, would probably seek written authority from the local police department but there are countless variations on how NGO use might present itself among states and localities nationwide. We believe that the certification from one of our licensees provides a reasonable measure of confidence that the NGO has received authorization from a governmental entity that is appropriate under the circumstances.
>
> "57. Some commenters disagree whether NGOs should be required to obtain governmental support for their 700 MHz applications in order to be eligible for licensing. While it is true that the statute does not expressly state that NGOs must obtain formal governmental approval to be licensed in the 700 MHz band, we believe that the above-described approach ensures that licensing of NGOs is consistent with the statutory requirements in a manner that minimizes information collection, submission, and other burdens for all interested parties. We note that this approach is consistent with our eligibility rules for

public safety spectrum allocated prior to the 1997 Budget Act, where NGOs generally received some type of approval from state or local government entities before being licensed on such spectrum. We also recognize that governmental authorities effectively have veto power over NGO applications for the 700 MHz band because NGOs need appropriate governmental authorization in order to be deemed eligible to receive a license.[144] Thus, under the rules we adopt today, NGOs are required to obtain written consent for their 700 MHz band applications, *i.e.,* initial, assignment, and transfer ~ directly from the state or local governmental entity that authorized the NGO to provide public safety services. For application processing purposes, so long as the NGO applicant submits the required written authorization of such a state or local governmental entity, we will deem these provisions satisfied.

"58. In sum, NGOs are eligible to be licensed for spectrum in the 700 MHz band that will be used for services, the sole or principal purpose of which is to protect the safety of life, health or property so long as state or local governmental authorization, from a primary mission provider, exists. To codify this policy and clarify that it applies to all NGO applications and licenses, both initially and on an ongoing basis, the rules we adopt today include a provision that expressly conditions all 700 MHz band licenses issued to NGOs as follows:

> 'This authorization is granted subject to the condition that frequencies in the 764-776 and 794-806 MHz bands shall be used exclusively for public safety services, *see* 47 U.S.C. § 337. If at any time the State or local governmental entity that authorized the applicant/licensee cancels, revokes, or terminates its authorization of the applicant/licensee: (1) in the case of an applicant, such applicant's pending application shall be dismissed automatically; and (2) in the case of a licensee, such licensee's authorization shall terminate automatically and immediately revert to the Commission.'

In the event that factual or legal disputes arise between NGOs and "supporting" governmental entities, the NGO will bear the burden of proof. Similarly, if another governmental entity challenges the accuracy of an NGO applicant's state or local government authorization, the NGO bears the ultimate burden of proof. If, however, another NGO challenges the state or local government authorization, the challenging NGO bears the burden of proof.

"59. If a governmental entity rescinds its authorization and the safety of the public requires immediate suspension of the NGO's 700 MHz band operation, the governmental entity should notify the Commission directly in writing. It is probable that governmental entities will need to communicate with NGOs that they authorize; they also have a strong interest in ensuring that NGOs use public safety spectrum properly." (Footnotes omitted; and emphasis supplied.)

The language of the *First Report and Order and Third Notice of Proposed Rule Making* in WT Docket No. 96-86 as a practical matter precludes the use aggregated authorizations to support a national license in the 700 MHz public safety spectrum. The right of the qualifying governmental entity to terminate a granted authorization to a nongovernmental entity makes reliance upon such authorizations an impractical legal basis for investment by a national licensee or its spectrum lessee.

Accordingly, there is no alternative to rejecting a national licensee as the legal basis for the development of wideband or broadband capability nationwide.

C. 47 U.S.C. §337(a)(1) and (f)(1(B)) remit the Commission, as a matter of law and of practicality, to the direct licensing of state and local government agencies and properly authorized non-governmental agencies, the use of existing institutions, and the setting of standards to achieve the policy goals of the Commission in relation to high bandwidth networks and national interoperability for public safety.

The analysis set forth above compels the conclusion that 47 U.S.C. §337(a)(1) and (f)(1) remit the Commission, as a matter of law and of practicality, to the direct licensing of state and local government agencies and properly authorized non-governmental agencies, the use of existing institutions, and the setting of standards to achieve the policy goals of the Commission in relation to high bandwidth networks and national interoperability for public safety.

D. 47 U.S.C. §337(a)(1) and (f)(1)(A) and(C) remit the Commission, as a matter of law, to the development of public safety wideband or broadband capability and interoperability without reliance upon commercial usage of the 700 MHz public safety spectrum.

Based upon the legal analysis provided in Part II of the RCC Comments, 47 U.S.C. §337(a)(1) and (f)(1)(A) and (C) remit the Commission, as a matter of law, to the development of public safety wideband or broadband capability and interoperability without reliance upon commercial usage of the 700 MHz public safety spectrum.

E. A framework that is at once consistent with both (i) the statutory requirements of 47 U.S.C. §337(a)(1) and (f)(1) and (ii) the policy concerns of the Commission can be developed by means of a rebalancing of certain judgments made by the Commission in the Ninth NPRM and a return of the balance to a position closer to that reflected in both: (i) the earlier pronouncements of the Commission in WT Docket 96-86 and (ii) the weight of public safety opinion.

RCC firmly believes that a framework that is at once consistent with both (i) the statutory requirements of 47 U.S.C. §337(a)(1) and (f)(1) and (ii) the policy concerns of the Commission can be developed by means of a rebalancing of certain judgments made by the Commission in the Ninth NPRM and a return of the balance to a position closer to that reflected in both: (i) the earlier pronouncements of the Commission in WT Docket 96-86 and (ii) the weight of public safety opinion.

RCC further firmly believes that the framework can effectively serve the objectives identified by the Commission in the Ninth NPRN:

- "Broadband,"
- "Nationwide Interoperability,"

- "Adequate Funding,"
- "Cost Effectiveness,"
- "Efficient Spectrum Use";
- "Robustness," and
- "Flexible Modern Architecture,"

and do so more effectively than the Commission's Public Safety Broadband Proposal.

In the balance of this Part V of the RCC Comments, RCC will outline its suggested principles for the development of a proper framework for the implementation of public safety wideband or broadband capability across the nation with appropriate provision for interoperability.

F. The Commission should adopt a bottom-up rather than a top down approach to the development of wideband and broadband public safety networks in the portion of the 700 MHz band subject to 47 U.S.C. §337(a)(1) and (f)(1).

For the reasons stated earlier in the RCC Comments, the Commission should adopt a bottom-up rather than a top down approach to the development of wideband and broadband public safety networks in the portion of the 700 MHz band subject to of 47 U.S.C. §337(a)(1) and (f)(1).

A bottom-up approach:

- *would maximize the involvement and control of state, local, and regional public safety agencies;*
- *would ensure that broadband or wideband capability would be built where needed and actually used;*
- *would surely enable the incorporation of interoperability among the users of a regional network and could be made subject to Commission-imposed requirements that would assure nationwide interoperability;*
- *would be more likely than the Commission's top-down approach to attract any necessary financing because the regional network users could assure their usage of the network which the national licensee of the Commission's top-down approach could not assure;*
- *would be more likely than the Commission's Public Safety Broadband Proposal to ensure cost effectiveness because no more capacity would be built than the users require;*
- *would be at least as likely to be spectrum efficient as the Commission's Public Safety Broadband Proposal because no more spectrum than was necessary would be utilized by the regional networks;*

- *would be as robust as the public safety users require, no more and no less;*

- *could as easily as the Commission's Public Safety Broadband Proposal take advantage of flexible modern architecture; and*

- *would not involve the creation of a monopoly or preclude the development of multiple networks that could provide for choice and redundancy.*

G. The Commission should establish such standards as are appropriate to insure the requisite degree of interoperability among wideband and broadband public safety networks established in the portion of the 700 MHz band subject to 47 U.S.C. §337(a)(1) and (f)(1).

The suggested bottom-up approach hardly excludes the Commission from a leading role in supporting the development of interoperable regional wideband and broadband networks. Indeed, in the view of RCC, substantial contributions would be required of the Commission.

The contributions required of the Commission include, but would not be limited to:

- *Establishing the governance framework for the development of regional networks whether through the utilization of existing RPCs or otherwise;*

- *Assuring that basic interoperability standards were adopted such that any mobile unit operating on any network could have basic compatibility with all networks whether through dedicated calling channels or overall interoperability or otherwise if and as necessary or proper;*

- *Addressing the problem of authentication by requiring the development of a national online authentication capability if necessary or proper or otherwise establishing a protocol for authentication at staging areas at the time of an incident which calls for more than a regional response by users of the regional network; and*

- *Establishing a governance and coordination process at the national level to assure effective means for the maintenance of interoperability among wideband and broadband public safety networks established in the 700 MHz band and the resolution of conflicts, if any, arising between or among RPCs in their planning for the development of wideband and broadband public safety networks in the portion of the 700 MHz band subject to 47 U.S.C. §337(a)(1) and (f)(1).*

H. The Commission should consider the development of a national broadband network with priority access for public safety users utilizing some or all of the 30MHz of spectrum set aside in 47 U.S.C. §337(a)(2) for commercial use and seek to address the requirement for competitive bidding by securing congressional action or by means of Commission-established bidding credits.

RCC respectfully submits that the Commission should consider the development of a national broadband network with priority access for public safety users utilizing some or all of the 30MHz of spectrum set aside in 47 U.S.C. §337(a)(2) for commercial use and seek to address the requirement for competitive bidding by securing congressional action or by means of Commission-established bidding credits.

Such a development in combination with the approach suggested by RCC would increase choice and competition and, if properly managed and coordinated, likely produce substantial benefits for public safety communications in support of first responders and otherwise. (For authority to provide for bidding credits, see: 47 U.S.C. §309(j)(3). For analysis of the authority for the creation of bidding credits, see: Extending Wireless Telecommunications to Trial Lands, *Report and Order and Further Notice of Proposed Rule Making* (WT Docket No. 99-269), 15 FCC Rcd 11794 (Released June 30, 2000) (¶¶ 18-21) and *Second Report and Order and Second Notice of Proposed Rule Making*, 18 FCC Rcd 4775 (Released March 14, 2003).)

VI. Conclusion

RCC respectfully submits that the RCC Comments have demonstrated that:

- **The Commission had exceeded its statutory authority by the manner in which it has proposed to establish a national public safety broadband network (the "Commission's Public Safety Broadband Proposal"):**

    - *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(B) by proposing to license an entity which is neither a state or local government entity nor a nongovernmental organization that is authorized by a government entity whose primary mission is the provision of public safety services;*

    - *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(C) by proposing to permit the license of the spectrum to be utilized for the national public safety broadband network to provide commercial service providers access to the licensee's assigned spectrum;*

    - *The Commission's Public Safety Broadband Proposal violates 47 U.S.C. § 337(f)(1)(A) by failing to establish broadband services that have as their sole or principal purpose the protection of life, health or property; and*

    - *The Commission does not have the authority to adopt the Commission's Public Safety Broadband Proposal when that proposal violates the plain meaning of the requirements of 47 U.S.C. § 337(f)(1).*

- **The Commission's Public Safety Broadband Proposal is inconsistent with the overwhelming weight of the comments of public safety agencies with respect to the manner in which wideband or broadband networks should be created and governed and represents an unsupported discontinuity in regulatory development respecting such networks.**

- **The Commission's Public Safety Broadband Proposal is unwise as it reflects an unworkable proposal or a proposal so fraught with uncertainties, problems, and the potential for conflict and other adverse developments that it is unlikely to assure "the rapid deployment of a nationwide, interoperable, broadband public safety network, and thereby improve emergency responsiveness." (**Ninth NPRM at ¶ 3)

    - *The Commission's Public Safety Broadband Proposal is not based upon a sound operational foundation because:*

        - *The Commission's Public Safety Broadband Proposal proceeds upon a misunderstanding of the needs of first responders;*

- *The Commission's Public Safety Broadband Proposal does not include the requisite degree of regional flexibility;*

- *The establishment of a monopoly is not the best approach to promoting the rapid deployment of a nationwide, interoperable, broadband public safety network and thereby to improve emergency responsiveness;*

- *The Commission has taken upon itself too much responsibility for the specification of the proposed network;*

- *The Commission has misconceived the sources of operational progress in the development of effective interoperability for public safety first responders;*

- *The Commission has not addressed operational problems associated with a national licensee's control of the preemption of access;*

- *The Commission has not addressed operational problems associated with the absence of local control of communications access in an emergency;*

- *The Commission has not addressed the need for practice exercises in order to maintain effectiveness of interoperations and the dependence of such exercises on local/regional control of the radio system which is relied upon;*

- *The Commission has not addressed either the differences in technical standards between public safety radio systems and commercial radio systems or the problem of public safety technical standards' not being met and maintained;*

- *The Commission has not addressed maintenance standards and network recovery requirements; and*

- *The Commission has not addressed the absence of operational alternatives for public safety agencies which have requirements not met by the national public safety broadband network proposed.*

- *The Commission's Public Safety Broadband Proposal is not based upon a sound technical foundation because:*

    - *The proposal is vulnerable to the unavailability of properly functioning cognitive radios;*

- *The Commission's requirement of an IP-based architecture is not a self-executing specification;*

- *The Commission's exclusion of wideband systems will result in coverage sacrifice or cost increases or both;*

- *The Commission's licensing the 700 MHz spectrum dedicated to narrowband to the national licensee on a secondary basis is technically flawed;*

- *The Commission has not addressed the undeveloped state of interoperability for data;*

- *The Commission has not addressed the technical vulnerability implicit in all public safety agencies relying upon one broadband network for their interoperability requirements; and*

- *The Commission has not addressed the consequences of public safety agencies choosing not to integrate their operations with the national public safety broadband network proposed or choosing not to monitor the transmissions made thereon.*

- *The Commission's Public Safety Broadband Proposal is not based upon a sound commercial foundation:*

    - *The qualifications established for the national licensee do not assure its success in the development of a national public safety broadband network;*

    - *The proposed national licensee is not, without major change, institutionally suited for the proper development of a national public safety broadband network proposed;*

    - *The proposed national licensee cannot reasonably be expected to act effectively for the thousands of public safety agencies which are potential users of the national public safety broadband network proposed;*

    - *Limitations of the proposed national licensee are inconsistent with the obligations imposed thereon by the Commission's Public Safety Broadband Proposal;*

    - *Limitations placed upon the proposed national licensee by the Commission's Public Safety Broadband Proposal will materially impede the fulfillment of the licensee's imposed obligations;*

- *The national licensee will have at its disposal inadequate spectrum to make a commercial lease arrangement that would serve public safety interests; and*

- *The Commission's Public Safety Broadband Proposal may necessarily involve subsidies and other asymmetrical treatment of users that could imperil the adoption of the national public safety broadband network proposed.*

- *The Commission's Public Safety Broadband Proposal relies upon material unproven assumptions and fails to consider developments at the regional and local level in public safety that undermine certain of the assumptions upon which that proposal depends.*

    - *The Commission optimistically assumes that funding for the Commission's Public Safety Broadband Proposal will be made available upon terms that promote the development of ubiquitous interoperability;*

    - *The Commission assumes the commercial success of the Commission's Public Safety Broadband Proposal and the national licensee's commercial service provider partner and does not consider or make provision for failure;*

    - *The Commission optimistically assumes that the fee for service rates will be fair, reasonable, and attractive to public safety agencies and provides no mechanism for change if those rates do not attract users;*

    - *The Commission optimistically assumes the universal adoption of service from the national licensee and does not consider that the failure of universal adoption will fundamentally undermine the national character of the public safety broadband network proposed;*

    - *The Commission optimistically assumes the viability of the public private partnership model in meeting the needs of public safety and does not consider the evidence to the contrary;*

    - *The Commission makes very optimistic assumptions about cost savings without examining the bases therefor; and*

    - *The Commission assumes without warrant that no regulatory framework is required for the operations of the national licensee and the national public safety broadband network proposed.*

- *The Commission's Public Safety Broadband Proposal is unlikely to meet the objectives set by the Commission therefor.*

For the reasons stated, RCC respectfully suggests that:

- ***The Commission withdraw the Commission's Public Safety Broadband Proposal and offer a new plan within the frame work established by 47 U.S.C. §337(a)(1) and (f)(1) and the policy concerns of the Commission;***

- ***The Commission recognize that 47 U.S.C. §337(a)(1) and (f)(1) preclude, as a matter of law and of practicality, the use of a single national licensee to achieve the policy goals of the Commission in relation to high bandwidth networks and national interoperability for public safety.***

- ***The Commission accept that 47 U.S.C. §337(a)(1) and (f)(1) remit the Commission, as a matter of law and of practicality, to the direct licensing of state and local government agencies and properly authorized non-governmental agencies, the use of existing institutions, and the setting of standards to achieve the policy goals of the Commission in relation to high bandwidth networks and national interoperability for public safety.***

- ***The Commission accept that 47 U.S.C. §337(a)(1) and (f)(1)(A) and(C) remit the Commission, as a matter of law, to the development of public safety wideband or broadband capability and interoperability without reliance upon commercial usage of the 700 MHz public safety spectrum.***

- ***The Commission work toward the development of a framework that is at once consistent with both (i) the statutory requirements of 47 U.S.C. §337(a)(1) and (f)(1) and (ii) the policy concerns of the Commission in relation to high bandwidth networks and national interoperability for public safety.***

- ***The Commission develop that policy framework by means of a rebalancing of certain judgments made by the Commission in the Ninth NPRM and a return of the balance to a position closer to that reflected in both: (i) the earlier pronouncements of the Commission in WT Docket 96-86 and (ii) the weight of public safety opinion.***

- ***The Commission adopt a bottom-up rather than a top down approach to the development of wideband and broadband public safety networks in the portion of the 700 MHz band subject to 47 U.S.C. §337(a)(1) and (f)(1).***

- ***The Commission should establish such standards as are appropriate to insure the requisite degree of interoperability among wideband and broadband public safety networks established in the portion of the 700 MHz band subject to 47 U.S.C. §337(a)(1) and (f)(1).***

- ***The Commission consider the development of a national broadband network with priority access for public safety users utilizing some or all of the 30MHz of spectrum set aside in 47 U.S.C. §337(a)(2) for commercial use and seek to address the requirement for competitive bidding by securing congressional action or by means of Commission-established bidding credits.***

RCC appreciates the opportunity to provide its views to the Commission and hopes that the RCC Comments will engage the interest of the Commission and be found helpful thereby.

Respectfully submitted,

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By: _____
Carl Robert Aron
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