

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands)	WT Docket No. 06-150
)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band)	PS Docket No. 06-229
)	
Amendment of Part 90 of the Commission's Rules)	WP Docket No. 07-100

COMMENTS OF THE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION

Russell H. Fox
Jennifer A. Cukier
Mintz, Levin, Cohn, Ferris,
Glovsky and Popeo, P.C.
701 Pennsylvania Avenue N.W.
Suite 900
Washington, D.C. 20004
Tel: (202) 434-7300
Fax: (202) 434-7400
rfox@mintz.com
jacukier@mintz.com

*Counsel for International Municipal
Signal Association*

Dated: April 11, 2011

TABLE OF CONTENTS

SUMMARY 1

COMMENTS OF THE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION 2

I. INTRODUCTION 3

II. COMMENTS..... 4

 A. The Commission Should Adopt the DHS Definition of “Interoperability” 4

 B. The Commission Should Interpret Section 337(f) to Permit All Public Safety Entities to Use the 700 MHz Public Safety Broadband Spectrum 5

 C. Imposing Detailed Technical Criteria on the Use of the Public Safety Broadband Spectrum Deprives the Public Safety Community of the Flexibility It Needs to Build a Nationwide Interoperable Network..... 7

 D. The Commission Should Ensure a Centralized Structure for Governing the Nationwide Network..... 9

 E. While the Commission Should Not Impose Detailed Technical Rules on the Public Safety Broadband Network, the Commission Should Consider Certain Issues If It Nonetheless Decides to Proceed in This Manner..... 10

 1. Use of a Single PLMN ID..... 10

 2. Upgrades to Include Voice Capabilities 10

 3. Interconnection with LMR Networks 11

 4. Coverage Reliability 12

 5. Interconnection with Next-Generation 911 Networks 12

III. CONCLUSION..... 13

SUMMARY

The International Municipal Signal Association (“IMSA”) urges the Commission to clarify that public entities performing critical public safety functions – regardless of whether such entities are engaged in fire, police, emergency medical or other local, tribal, state or federal activities – are eligible public safety broadband network users. In addition, while the Commission’s adoption of Long Term Evolution (“LTE”) as the common technology platform for the public safety network will help achieve nationwide interoperability, the detailed technical rules proposed in the *Fourth Further Notice* go too far in dictating network requirements, which will have the unintended effect of hindering the deployment and use of the public safety broadband network by locking public safety into particular standards and technologies and by preventing changes from being implemented based on technological innovation and experience. Instead of proceeding *via* rulemaking, the Commission should recognize a centralized governing body to oversee the nationwide public safety broadband network that would make decisions regarding the network and its technical parameters. While IMSA discourages the Commission from adopting detailed technical rules governing the public safety broadband network, should the Commission decide to proceed through a rulemaking, the Commission should ensure that certain technical issues are addressed as specified herein.

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands)	WT Docket No. 06-150
)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band)	PS Docket No. 06-229
)	
Amendment of Part 90 of the Commission’s Rules)	WP Docket No. 07-100

COMMENTS OF THE INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION

The International Municipal Signal Association (“IMSA”), by its attorneys and pursuant to the *Fourth Further Notice of Proposed Rulemaking* in the above-referenced proceedings,^{1/} hereby submits its comments to the Federal Communications Commission (“FCC” or “Commission”) regarding the detailed requirements proposed by the Commission to further promote and enable nationwide interoperability among public safety networks operating in the 700 MHz band. While the Commission should make certain clarifications to its rules – such as specifying that public entity functions beyond police, fire, and emergency medical personnel qualify as public safety use eligible to operate on the public safety broadband network – the Commission should not adopt detailed technical rules governing network operations. Such technical decisions are better left to the public safety entities themselves through a centralized structure responsible for governing the network.

^{1/} *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band; Amendment of Part 90 of the Commission’s Rules*, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, 26 FCC Rcd 733 (2011) (“*Third Report and Order*” and “*Fourth Further Notice*”).

I. INTRODUCTION

IMSA is a nonprofit organization dedicated to the development and use of electric signaling and communication systems in furtherance of public safety. IMSA's approximately 12,000 members include representatives of federal, state, county, city, township, and borough governmental bodies, as well as representatives of governmental bodies of foreign nations. IMSA works to improve the efficiency, installation, construction, and maintenance of public safety equipment and systems by increasing the knowledge of its members in several diverse technical fields including public safety communications. IMSA offers educational and certification programs in a variety of public safety disciplines including Traffic Signals, Signs and Markings, Work Zone Traffic Control, Municipal and Interior Fire Alarm Systems, Public Safety Telecommunications, Fiber Optics, and Flagging. IMSA is responsible for coordinating frequencies designated in Section 90.20 of the FCC's rules and is also authorized to coordinate the Public Safety Pool channels. IMSA directs and manages frequency coordination and related spectrum management functions.

IMSA is also a founding member of the National Public Safety Telecommunications Council ("NPSTC"), an umbrella organization that was formed principally to ensure that the broad interests of the public safety community are represented in major telecommunications policy matters. As the Commission is aware, NPSTC has taken a leading role in developing policies for the use of public safety spectrum. IMSA is also on the Board of Directors and was one of the three founding associations of the Public Safety Spectrum Trust ("PSST"), the FCC's Public Safety Broadband Licensee ("PSBL").

Because the *Fourth Further Notice* proposes technical rules governing the operation of networks in the 700 MHz band and such rules directly affect IMSA’s members, IMSA is pleased to have the opportunity to submit the following comments.

II. COMMENTS

A. The Commission Should Adopt the DHS Definition of “Interoperability”

IMSA agrees with the Commission that the definition of “interoperability” used in Part 90 of the Commission’s rules should be harmonized with the definition used by the Department of Homeland Security (“DHS”).^{2/} In particular, DHS defines interoperability as “the ability of public safety agencies to talk to one another via radio communications systems – to exchange voice and/or data with one another on demand, in real time, when needed and when authorized.”^{3/} As the Commission notes, replacing the Commission’s current definition with DHS’s broader definition will help ensure “that the public safety community, whoever and wherever they are, is able to communicate with one another.”^{4/} In particular, the DHS definition was created with the input of many members of the state and local public safety community. Further, the definition specifies that interoperability is achieved when public safety agencies are able to communicate with each other “when needed and when authorized,” which is consistent with the concept that every public safety user generally does not need the ability to communicate with every other public safety user all of the time; this capability is only needed under certain circumstances. Consequently, because it aligns well with the needs of public safety and its current and future operations, the FCC should adopt the DHS definition of “interoperability.”

^{2/} *Fourth Further Notice* ¶ 16.

^{3/} *Fourth Further Notice* ¶ 16.

^{4/} *Fourth Further Notice* ¶ 16.

B. The Commission Should Interpret Section 337(f) to Permit All Public Safety Entities to Use the 700 MHz Public Safety Broadband Spectrum

As the Commission recognized in the *Fourth Further Notice*, Section 337 of the Communications Act governs the use of the 700 MHz public safety broadband spectrum. Subsection (f) of Section 337 defines “public safety services” as services (1) “the sole or principal purpose of which is to protect the safety of life, health or property,” (2) that are provided by a governmental entity or a non-governmental entity that is authorized by a governmental entity “whose primary mission is the provision of such services,” and (3) that are not made commercially available to the public by the provider.^{5/}

A literal interpretation of this provision could have the effect of limiting permissible users of the public safety broadband network to police, fire, and emergency medical service (“EMS”) personnel only, because only those users’ sole or principal function is “to protect the safety of life, health, or property.” Such a narrow interpretation of the statute, however, would prevent other public entities, that play critical roles in public safety, from using the network. For example, in times of emergency, public transportation and municipal traffic control facilities often are instrumental in coordinating evacuations and handling crowd control, schools may be called upon to serve as command posts and shelters, and municipalities themselves regularly serve important coordination and communication functions. In order to achieve a truly interoperable public safety network, such public entities must be able to use the network to perform these important functions, and therefore must be classified as eligible users under Section 337.

It would be contrary to the public interest to prohibit such entities from using the public safety network. In addition to hindering communications during times of emergency, it would

^{5/} 47 U.S.C. § 337(f); *Fourth Further Notice* ¶ 134.

require states and municipalities to use multiple broadband networks for different needs. In addition, such a result would stifle interoperability among public entities for non-emergency communications.

Because the Commission mandated in the *Third Report and Order* that all public safety broadband networks adopt LTE as a common technology platform^{6/}, the protection of the safety of life, health, and property will and should have priority on the network, while still permitting access by other state and local governmental entity traffic. As the Commission noted,^{7/} LTE can accommodate multiple priority layers, which will ensure that communications related to the protection of the safety of life, health, and property will always have priority access – whether those communications are initiated by a “home” unit or a “visiting” unit.

IMSA agrees with the City of Charlotte, which has separately requested that the Commission “clarify the scope of activities that are permitted to be conducted by state and local entities authorized to operate on 700 MHz broadband public safety spectrum” either in the context of this rulemaking proceeding or separately in response to the City’s request for a declaratory ruling.^{8/} In particular, IMSA agrees with the City’s requested clarification that “[t]erritories, possessions, states, counties, towns or similar State or local governmental entities that qualify as 700 MHz lessees/users presumptively have as their sole or principal purpose the protection of the safety of life, health, and property and are permitted to use 700 MHz broadband spectrum for activities conducted by their personnel including, but not limited to, activities of police, fire and medical emergency first responders.”^{9/} As the *City of Charlotte Request* notes,

^{6/} *Third Report and Order* ¶ 5.

^{7/} *Fourth Further Notice* ¶ 46.

^{8/} See, e.g., Request for Declaratory Ruling, City of Charlotte, North Carolina, PS Docket No. 06-229, at 1 (filed March 7, 2011) (“*City of Charlotte Request*”).

^{9/} *City of Charlotte Request* at 3.

the statute, Section 337's legislative history, and the Commission's rules demonstrate that the 700 MHz public safety spectrum should be used "to develop multiple user public safety communications systems and local and regional interoperability systems that effectively incorporate all public safety services providers."^{10/}

C. Imposing Detailed Technical Criteria on the Use of the Public Safety Broadband Spectrum Deprives the Public Safety Community of the Flexibility It Needs to Build a Nationwide Interoperable Network

Much of the *Fourth Further Notice* seeks comment on detailed technical rules that would be applicable to a nationwide public safety network.^{11/} Such technical issues should not be addressed by the Commission through the rulemaking process; rather, these issues should be left to the discretion of the public safety community. *First*, regulating the network at such a high level of detail represents a significant departure "from the Commission's traditional posture of technological neutrality," which "has served the public interest well."^{12/} The Commission does not impose such a detailed level of technical requirements on commercial or other public safety networks, and there is simply no justification for doing so in this instance. *Second*, adopting such detailed technical criteria will only serve to hamstring public safety in the future and lock out-of-date technologies in place. Public safety entities need the freedom to make technical decisions regarding their networks in order to speed deployment, tailor their systems to the needs of their specific populations and geographic areas served, and comply with any budgetary restrictions. Any rule-based technical decisions made now may not be appropriate in the future, and the public safety community would be forced to change any outdated rules through the

^{10/} *City of Charlotte Request at 1 (quoting Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Agency Communications Requirements Through the Year 2010, First Report and Order and Third Notice of Proposed Rulemaking, 14 FCC Rcd 152, ¶ 5 (1998)).* IMSA is submitting separately Comments supporting the City of Charlotte's request.

^{11/} *Fourth Further Notice* ¶¶ 17-99.

^{12/} *Third Report and Order* ¶ 10.

rulemaking process. Engaging in the rulemaking process could take years and inevitably would frustrate the deployment of important public safety broadband systems throughout the country.

In addition, many of the Commission’s proposed technical rules are inappropriate given the public safety context. For example, the public safety community – and not the Commission – should be responsible for addressing the network’s coverage requirements.^{13/} As the Commission recognized, “commercial providers often have economic incentives to concentrate their network deployments in high population areas but . . . public safety broadband users will require coverage availability even in highly rural areas.”^{14/} Unlike commercial providers, public safety entities have every incentive to ensure coverage of the populations and locations that they serve. Determinations regarding how to serve the public safety needs of specific areas are best left to the public entities responsible for the safety of those populations and communities.

Moreover, many of the compatibility issues discussed in the *Fourth Further Notice* will be addressed by the fact that the FCC has mandated the use of LTE technology – a technology where third parties set the interoperability standards. When LTE migrates to future technologies or adds new features, subject to the availability of funding, public safety will migrate, too. Other compatibility issues not addressed by the natural evolution of LTE technology can be addressed by the nationwide Public Safety Broadband Licensee (“PSBL”) or an entity responsible for governing the nationwide network as described in more detail below. For example, a nationwide governing entity could determine which applications should be featured throughout the network, leaving other applications available for selection by state and local entities, depending on geography and the type of agency using the network.

^{13/} *Fourth Further Notice* ¶¶ 71-73.

^{14/} *Fourth Further Notice* ¶ 73.

D. The Commission Should Ensure a Centralized Structure for Governing the Nationwide Network

While it is inappropriate for the FCC to mandate the technical features of a nationwide interoperability network, the Commission *should* address the governing structure of the network. In order for a truly interoperable nationwide network to exist, there must be an entity responsible for governing the entire network. Such a governing body would be a more appropriate vehicle than a rulemaking for addressing the technical requirements of the nationwide public safety broadband network. Allowing such an entity to make the technical decisions teed up in the Commission's *Fourth Further Notice* would provide the nationwide network with the ability to evolve as technology evolves. A centralized governing body would be able to respond more quickly to the changing needs of the public safety community and eliminate the need to proceed *via* rulemaking every time a technical network requirement must be changed.

Such a governing body should address all technical decisions associated with the network, including the applications required across the network. In addition, a centralized governing body could manage and advise localities regarding the types of communications and applications permitted on their local networks to prevent any inconsistent uses of the network that could affect interoperability. Such a flexible vehicle for decision-making would ensure nationwide coordination while providing localities with the ability to make changes to their public safety networks as their needs and technology evolve.

E. While the Commission Should Not Impose Detailed Technical Rules on the Public Safety Broadband Network, the Commission Should Consider Certain Issues If It Nonetheless Decides to Proceed in This Manner

As noted above, IMSA urges the Commission not to impose detailed technical requirements on the use of the public safety broadband network. If, however, the Commission nonetheless decides to adopt the technical criteria described in the *Fourth Further Notice*, the Commission should take into account the following issues.

1. Use of a Single PLMN ID

If the Commission decides to adopt technical rules governing the use of the 700 MHz public safety broadband network *via* rulemaking, it should require the use of a single Public Land Mobile Network Identifier (“PLMN ID”) for the entire network.^{15/} Such an approach would help achieve nationwide interoperability by simplifying the process by which public safety users gain access to the public safety network when traveling outside of their “home” area(s), as such users would not be required to “roam” on the public safety network. Rather, all public safety user devices could operate in all areas covered by the network. The only roaming required would be from the public safety network onto commercial networks. The use of one PLMN ID for the entire public safety system would allow the nationwide network to act as a true unified network rather than a “network of networks,” thus furthering the goal of nationwide interoperability while minimizing complexity and costs.

2. Upgrades to Include Voice Capabilities

The *Fourth Further Notice* asks whether the Commission should mandate that public safety users upgrade their networks to include voice capabilities.^{16/} Regardless of whether the Commission adopts technical requirements governing the public safety broadband network,

^{15/} *Fourth Further Notice* ¶¶ 32-34.

^{16/} *Fourth Further Notice* ¶ 29.

IMSA believes that the Commission should not adopt at this time any requirement mandating upgrades to support voice capabilities. Network operators – including commercial and public safety operators – exercise discretion in determining which features and functionality to incorporate into their networks without mandates from the FCC. Public safety in particular needs the ability to evaluate and test new features and technologies to ensure compliance with public safety’s specific, critical requirements. The nationwide public safety network is initially intended to support data communications needs. Mission critical voice may follow as the network evolves – but only after further advancement of LTE standards that will address many open questions, including direct peer-to-peer transmission. While public safety users have strong incentives to upgrade their systems to include features such as mission critical voice as technology evolves, it is too soon for the Commission to impose such a requirement. It should be public safety that makes the decision when to add mission critical voice based on technology evolution and user needs.

3. Interconnection with LMR Networks

Similarly, the Commission should not adopt a rule requiring public safety broadband networks to interconnect with existing land mobile radio (“LMR”) systems.^{17/} Given the large degree in variation from jurisdiction to jurisdiction regarding network capabilities, infrastructure deployed, and costs associated with interconnection, the decision regarding whether and how to interconnect with legacy systems is best left to each locality.

^{17/} *Fourth Further Notice* ¶ 58.

4. Coverage Reliability

In the *Fourth Further Notice*, the Commission seeks comment on whether to impose coverage reliability requirements on public safety network operators.^{18/} Should the Commission decide to impose coverage reliability standards, IMSA agrees that the Commission should adopt outdoor coverage reliability at a probability of coverage of 95 percent for the public safety broadband network. It would be nearly impossible to achieve the 95 percent standard for in-building coverage. Because of certain factors, such as changes in building construction technology and the layout of buildings in different urban areas, IMSA believes that establishing a nationwide coverage standard for in-building coverage is not feasible at this time.

5. Interconnection with Next-Generation 911 Networks

IMSA believes that Next-Generation 911 networks should be compatible with the nationwide public safety broadband network.^{19/} Linking the two systems would provide significant public benefits, such as allowing text and images sent by the public to be processed by Next-Generation 911 networks and retransmitted to first responders in the field. Such data and images would speed response to emergencies and help protect the country's emergency personnel.

^{18/} *Fourth Further Notice* ¶ 75.

^{19/} *Fourth Further Notice* ¶ 133.

III. CONCLUSION

The International Municipal Signal Association hereby submits the foregoing comments and requests that the FCC act in accordance with the views expressed herein.

Respectfully submitted,

/s/ Russell H. Fox

Russell H. Fox
Jennifer A. Cukier
Mintz, Levin, Cohn, Ferris,
Glovsky and Popeo, P.C.
701 Pennsylvania Avenue N.W.
Suite 900
Washington, D.C. 20004
Tel: (202) 434-7300
Fax: (202) 434-7400
rfox@mintz.com
jacukier@mintz.com

*Counsel for International Municipal Signal
Association*

Dated: April 11, 2011