

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

In the Matter of)	
)	
Former Nextel)	WT Docket No. 06-169
Communications, Inc. Upper)	
700 MHz Guard Band Licenses)	
and Revisions to Part 27 of the)	
Commission's Rules)	
)	WT Docket No. 96-86
Development of Operational,)	
Technical and Spectrum)	
Requirements for Meeting)	
Federal, State and Local Public)	
Safety Communications)	
Requirements Through the)	
Year 2010)	

COMMENTS OF ERICSSON INC

To: The Commission
Attention: Wireless Bureau

Mark Racek
Director, Spectrum Policy
Ericsson Inc
1634 I Street, N.W., Suite 600
Washington, D.C. 20006-4083
Telephone: (202) 824-0110
Facsimile: (202) 783-2206

Elisabeth H. Ross
Birch, Horton, Bittner & Cherot
1155 Connecticut Avenue, N.W.
Suite 1200
Washington, D.C. 20036
Telephone: (202) 659-5800
Facsimile: (202) 659-1027

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SUMMARY

Ericsson Inc (“Ericsson”) commends the Commission for reviewing its service rules applicable to Upper 700 MHz Guard Band licensees, and the current Upper 700 Band Plan with respect to the Guard Bands. Ericsson urges the Commission to revise the existing Upper 700 MHz Band Plan to accommodate public safety agencies’ use of broadband technologies and promote spectrum efficiency. Ericsson supports the principles underlying the proposed Upper 700 MHz Band Plan revisions.

Ericsson offers a revised Band Plan that creates even greater spectrum efficiencies, encourages public safety broadband deployment in additional ways, and provides more protection from interference, with fewer modifications to the existing Band Plan. The Plan encourages the development of interoperable products for public safety users, particularly by setting rules for duplex direction, aligning commercial and public safety spectrum allocations and eliminating a guard band that can “get in the way” of synergies between commercial and public safety broadband use. In this way, the plan ensures that products will be designed to serve the public safety and commercial markets, broadening public safety’s access to products and services. Also, because the Ericsson plan does not shift the position of commercial blocks, it does not disrupt the deployment of products and services in the band and minimizes impact to the upcoming auction.

Ericsson understands the Commission’s concerns that relocating the narrowband channels raises issues. However, Ericsson believes that the

substantial public interest benefits achieved by revising the Band Plan far outweigh other concerns. The costs and work involved in implementing changed narrowband allocations should be relatively minimal and well worth the additional effort.

Ericsson also supports providing additional flexibility to Guard Band Managers to promote more efficient use of the spectrum. Ericsson supports applying the Secondary Markets regime instead of the existing rules, and examining other proposals that may increase flexibility. The Commission should make sure that any substitute rules provide public safety agencies adequate protection from harmful interference, and do not impose too much additional cost or operational constraints on adjacent commercial systems' operations.

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COMMENTS OF ERICSSON INC

I. INTRODUCTION.

Ericsson Inc (“Ericsson”) submits these Comments in response to the FCC’s Notice of Proposed Rulemaking in the above-referenced proceeding.¹ In the *NPRM*, the Commission seeks comment on possible changes to its Part 27 services rules applicable to Upper 700 MHz Guard Bands licensees to provide licensees greater flexibility while also protecting adjacent public safety operations from harmful interference.² In addition, the Commission seeks comment on proposals for relicensing the returned Nextel Guard Band

¹ See *In the Matter of Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, Development of Operational Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket Nos. 06-169, 96-86, Notice of Proposed Rulemaking, FCC 06-133 (rel. Sept. 8, 2006) (“*NPRM*”).

² See *id.* ¶ 3.

licenses.³ It also seeks comment on proposals to modify the current Upper 700 MHz band plan with respect to the Guard Bands.⁴

Ericsson commends the Commission for reviewing the service rules and band plan for the Guard Bands and agrees that new developments warrant rule changes that promote more efficient use of the Guard Bands and accommodate broadband technologies for public safety. The reclamation of Nextel Communications, Inc.'s ("Nextel's")⁵ Guard Band licenses and the establishment of a deadline for incumbent analog broadcasters to vacate the spectrum⁶ create a perfect opportunity to refine the Guard Bands service rules.

In these comments, Ericsson makes the following recommendations:

- The Commission should modify the existing Upper 700 MHz band plan with respect to the guard bands. Specifically, it should:
 - Keep the band plan largely intact so as not to disrupt the deployment of products and services in the band;
 - Apply a paired-band assignment to all blocks to promote regulatory certainty, prevent interference, and minimize coordination costs;
 - Consolidate narrowband channels within the public safety blocks into a contiguous 6 MHz band and designate 5 MHz in each public safety block to encourage broadband technologies and maximize spectrum efficiency;

³ *See id.* ¶ 4.

⁴ *See id.* ¶ 5.

⁵ On August 12, 2005, Nextel merged with Sprint Corporation to form Sprint Nextel Corporation. *See Applications of Nextel Communications, Inc. and Sprint Corporation for Consent to Transfer Control of Licenses and Authorizations*, WT Docket No. 05-63, Memorandum Opinion and Order, 20 FCC Rcd 13967 (2005).

⁶ *See* Digital Television Transition and Public Safety Act of 2005, 120 Stat. 21 (2006) ("DTV Act") (*to be codified* at 42 U.S.C. § 309 note). The DTV Act requires the Commission to commence auctioning of the remaining 700 MHz band commercial spectrum no later than January 28, 2008.

- Reallocate the B Block guard band licenses for exclusive public safety use; and
- Create guard bands within the public safety blocks to protect narrowband public safety systems from adjacent users.
- The Commission should modify its Guard Band service rules to provide additional flexibility to Guard Band Managers. Specifically, it should:
 - Replace existing rules with the Secondary Markets regime; and
 - Consider making other service rule changes, as long as those changes do not diminish the Guard Bands' role in protecting public safety against interference, or result in increased costs or operational constraints in the commercial bands.

Overall, the Commission should not pass up this opportunity to make changes in its Upper 700 MHz band plan that can go very far to achieve important Commission goals. In particular, accommodating public safety broadband use adjacent to the commercial band will promote partnerships between public safety agencies and commercial users, encourage interoperability, facilitate public safety use of commercial broadband products and create synergies, such as economies of scale and increased coverage for public safety operations. The Commission should not let other concerns override these critically important public policy goals.

II. BACKGROUND.

In the *NPRM*, the FCC seeks comments on possible changes to its Part 27 service rules applicable to existing and prospective Upper 700 MHz Guard

Bands licenses.⁷ The FCC specifically created the Guard Bands to protect public safety spectrum from interference resulting from commercial operations in the adjacent five-and-ten megahertz C and D Blocks. The Guard Bands licensees are governed by a unique set of service rules that were designed in recognition of the Guard Bands' unique role in protecting adjacent 700 MHz public safety operations.

Two developments prompt the FCC to seek comment on possible rule changes that could promote more efficient and effective use of the Guard Bands. First, Congress recently created greater certainty regarding the availability of unencumbered 700 MHz spectrum for wireless commercial and public safety licensees – including the Guard Bands – by establishing a “hard date” of February 17, 2009 by which incumbent analog broadcasters must vacate the spectrum. Second, as part of the 800 MHz public safety interference remediation proceeding (WT Docket No. 02-55), in 2004 the Commission reclaimed all of the Nextel Guard Band licenses in 42 of the 52 B Block markets.

III. THE COMMISSION SHOULD MODIFY THE EXISTING UPPER 700 MHz BAND PLAN WITH RESPECT TO THE GUARD BANDS.

In the *Public Safety Notice*, the Commission asked for comment on its tentative conclusion that the narrowband channels within the paired 700 MHz public safety block should not be moved from their current

⁷ These bands are assigned in two blocks of paired spectrum, the A Block (746-747, 776-777 MHz) and the B Block (762-764, 792-794 MHz) (collectively referred to herein as the “Guard Bands”).

locations.⁸ Commenters responded with proposed changes to the band plan that move narrowband channels to create far more efficient use of spectrum. Based on those comments, the FCC now seeks comment on whether it should change the existing Upper 700 MHz band plan.⁹ It also asks for comments on the Optimization Plan and other Upper 700 MHz plan revisions.¹⁰

Ericsson strongly recommends that the Commission modify its band plan for the Guard Bands and public safety allocation in the Upper 700 MHz band. The Band Plan has certain weaknesses which impede maximum public safety and commercial broadband deployment as well as efficient spectrum use. Ericsson supports the direction of Band Plan revisions contained in the Optimization Plan and other proposals that, for example, improve spectrum efficiency by moving narrowband channels to a contiguous location and accommodate public safety agency use of broadband technologies. However, it believes that the Commission can take these proposals a step further, with only slight modifications to the current Band Plan, to achieve these policy goals even more effectively. Ericsson provides the Commission with a revised Band Plan that achieves greater interference protection and spectrum efficiency, with fewer changes to the existing Band Plan.

A. Revising the Upper 700 MHz Band Plan Will Further the Commission's Policy Goals.

⁸ See *In the Matter of the 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, Eighth Notice of Proposed Rulemaking, 21 FCC Rcd 3668, 3675-76 ¶ 13 (2006) (“*Public Safety Notice*”).

⁹ See *NPRM* ¶ 17.

¹⁰ See *NPRM* ¶ 46.

Ericsson agrees that the Commission should revise its Upper MHz Band Plan now in order to take advantage of the reclaimed Nextel spectrum and accommodate public safety agencies' need for broadband technologies, and thereby promote far greater spectrum efficiency. Currently, the Upper 700 MHz Band Plan suffers from certain weaknesses. The Band Plan does not group "like services" together, creating inefficiencies in spectrum use and a need for more guard bands than is otherwise necessary. Further, the Band Plan does not accommodate broadband technology for public safety agency use. Fortunately, there are few systems operating in the Guard Bands that will impede revising the Upper 700 MHz spectrum allocation.

Accommodating public safety use of broadband technologies should be a paramount goal of the Commission in analyzing this Band Plan. As the Commission found in its Report to Congress, evaluating the spectrum needs of emergency response providers, broadband will provide many critical benefits for public safety agencies, including delivery of rapid warnings and messages pertaining to criminal activity, video surveillance during an emergency, real time text-messaging, and of great general importance, the ability to obtain location and status information of personnel and equipment in the field.¹¹

¹¹ See Federal Communications Commission, *Report to Congress on the Study to Assess Short-Term and Long-Term Needs for Allocations of Additional Portions of the Electromagnetic Spectrum for Federal, State and Local Emergency Response Providers*, WT Docket No. 05-157, 37 Communications Reg. (P&F) 706, at ¶ 26 (Dec. 19, 2005) ("Intel Reform Act Report"). Broadband will also make possible specific applications such as data files or streaming video, transfer of biometric information, and two way internet and intranet access, all essential information service needs for public safety agencies.

Depending on how it revises its Band Plan, the Commission can maximize broadband use for both commercial and public safety users and also create efficiencies. For example, designating public safety broadband allocations adjacent to commercial bands can create significant synergies between the two markets in supported services, economies of scale and provide other benefits. Further, by placing similar broadband public safety and commercial allocations next to each other, the Commission can avoid dedicating spectrum to Guard Band functions, and still not be concerned with creating risks of harmful interference. Plus, it will encourage greater interoperability and facilitate public safety agencies' use of commercial systems.

Also, the Commission can take steps to improve efficient use of spectrum in the band. For example, if the Commission moves the narrowband channels so that they are grouped together, it will greatly enhance spectrum efficiency. As the Spectrum Policy Task Force noted in its Report, grouping like services in "spectrum neighborhoods" will maximize efficiencies in spectrum usage.¹² It specifically recommended that the Commission look for "defragmentation" opportunities, including consolidating narrowband spectrum "slices" and encouraging migration of compatible technologies into common band groupings.¹³ The Task Force recommended that the Commission group technically compatible systems and devices in

¹² See Federal Communications Commission, Spectrum Policy Task Force, Report, ET Docket No. 02-135, (2002) at 22.

¹³ *Id.* at 66.

close spectrum proximity.¹⁴ By moving the narrowband channels in the Upper 700 MHz Band, the Commission can accomplish these significant objectives.

Ericsson commends the Optimization Plan and other proposals that move toward accomplishing these objectives. However, the Commission can meet these objectives, provide more spectrum efficiency, create even more protection from harmful interference, and maximize both commercial and public safety broadband use, with minor modifications to the existing Band Plan.

B. The Commission Should Adopt Ericsson's Proposed Revisions to the Upper 700 MHz Band Plan.

Ericsson recommends the Commission adopt a Band Plan for the Upper 700 MHz band that contains the following elements:

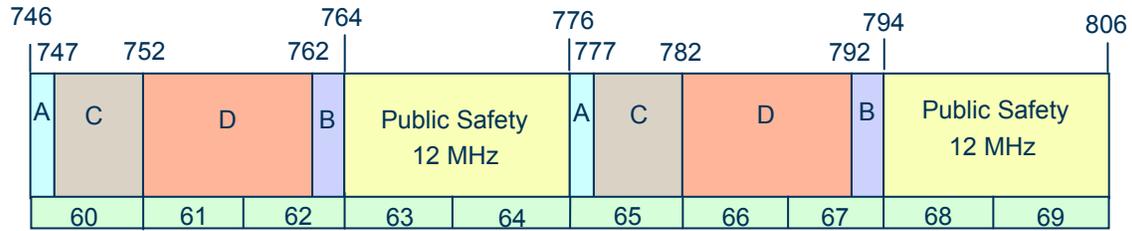
1. Keep the band plan largely intact, but establish a consistent framework by applying a paired-band assignment to all blocks (A, B, C, D, and public safety), thereby promoting efficient spectrum use through regulatory certainty;
2. Relocate narrowband channels within the 700 MHz public safety blocks to create contiguous 6 MHz bands;
3. Designate 5 MHz in each public safety block to encourage broadband technologies, but refrain from imposing any particular technology on public safety agencies;
4. Reallocate the B Block guard band licenses to public safety use;

¹⁴ *Id.* at 22.

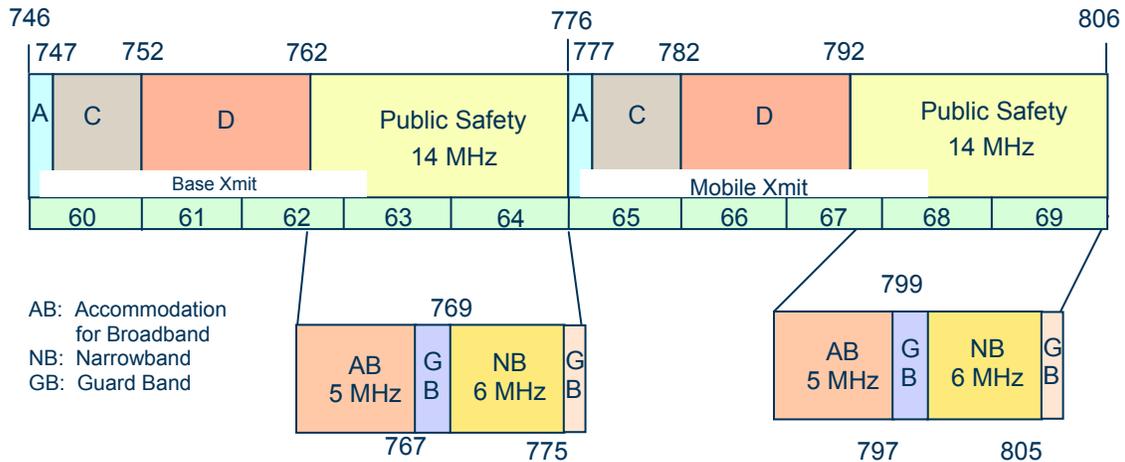
5. Create guard bands in the middle and upper end of each block of public safety spectrum to ensure that public safety users are protected from interference from adjacent users.

The proposed band plan is shown below:

Current Band Plan



Ericsson Plan



First, the Commission should apply a paired-band assignment to all blocks (A, B, C, D, and public safety) to align their duplex direction to promote efficient spectrum use through regulatory certainty. The current band rules for Upper 700 MHz allow licensees to use a single spectrum block for both base and mobile transmitters. These rules, however, stand to create too much regulatory uncertainty in the Upper 700 MHz band, and are likely to *reduce* efficient use of spectrum and lose some economies of scale. In order to maximize efficient spectrum use and promote broadband deployment, the Commission needs to modify the rule to ensure that it remains in the public interest. The Commission should require base station transmitters to

transmit from 746-776 MHz, and it should require mobile transmitters to use the 777-806 MHz frequencies.

The paired-band assignment is critical to protecting public safety users from harmful interference and ensuring that licensees use spectrum efficiently. Public safety entities could suffer interference from nearby commercial users who are operating in opposite duplex directions (i.e., public safety uplink band near commercial downlink band, etc.). This increases the potential for interference and raises equipment costs to allow for more filtering and reduce blocking.

Second, the Commission should relocate and consolidate the narrowband channels within the 700 MHz public safety block to create contiguous 6 MHz bands in both the lower and upper public safety blocks. Moving the narrowband channels will greatly enhance spectrum efficiency in the Upper 700 MHz band by defragmenting the narrowband slices. It will also facilitate reliable communications for the public safety systems and better protect against interference by grouping technically compatible systems in close spectrum proximity.¹⁵ By moving the narrowband channels, the Commission will also better accommodate broadband systems in the Upper 700 band.

Third, to provide maximum flexibility, the Commission should allocate 5 MHz of paired spectrum in the public safety bands adjacent to the

¹⁵ *Id.* at 22.

commercial Block D to accommodate broadband technologies.¹⁶ Accommodating broadband technologies will create synergies between adjacent commercial and public safety operations, including in economies of scale, supported services and other areas. These types of synergies include the ability for public safety users to gain larger service areas if they partner with commercial spectrum neighbors and their public safety handsets/devices can operate across larger geographic areas.¹⁷ The Commission may place the broadband public safety and commercial allocations adjacent to each other without creating additional risks of harmful interference because the network types are similar, and therefore co-existence will be more manageable.

If the Commission adopts a Band Plan that accommodates 2 x 5 MHz of paired spectrum, it can maximize public safety agencies' broadband technology options while still providing adequate spectrum for narrowband services. With less than 5 MHz, public safety agencies will not be able to adopt many of these valuable options.¹⁸ The 5 MHz channel bandwidth also creates spectrum efficiencies. It provides the appropriate amount of bandwidth for internal guard band for the broadband technologies.¹⁹ A 5

¹⁶ The Commission should reserve the remainder of the public safety blocks, not including guard bands, for narrowband services.

¹⁷ Commissioner McDowell recently encouraged such partnerships between public safety and commercial neighbors at the 3G Americas symposium on October 18, 2006.

¹⁸ In revising the Band Plan, the Commission should not impose any particular choice of technology for the provision of broadband services. Rather, it should permit Regional Planning Committees ("RPCs") to adopt the technology that best advances public safety agencies' needs in their individual regions. RPCs can best determine optimal technology solutions within their own local areas. This applies to any additional spectrum, including spectrum identified for guard band, identified for public safety.

¹⁹ Using a bandwidth larger than 5 MHz presents certain problems. For example, modifying equipment to take advantage of the additional block sizes would add cost and require changes to the technology standards, greatly limiting potential benefits. Also, increasing the

MHz channel bandwidth is ideally suited as it supports the multitude of broadband technologies including including W-CDMA/HSPA, EV-DO, WiMax, FLASH OFDM, LTE, and other technologies in development, and also encourages entities to be more efficient with their spectrum use.²⁰

Fourth, the Commission should adopt Nextel's recommendation and devote the B Block Guard Band licenses to exclusive public safety use. The Commission has already developed a vast record on the additional spectrum needs of public safety entities, and the B Block Guard Band licenses provide an excellent opportunity to further its public safety initiatives. In this way, the Commission will increase public safety spectrum while still adequately protecting public safety users from interference.²¹

The FCC does not need to employ a guard band if the Public Safety spectrum immediately adjacent to the commercial D Block is used to accommodate similar network systems with coordinated duplex directions. Ericsson's proposal, therefore, eliminates the need for the current guard bands at 762-764 MHz and 792-794 MHz.²² As a result, equipment designed to operate in the commercial D Block could more easily incorporate the

channel bandwidth beyond 5 MHz could cause delays in obtaining equipment for the band. Therefore, to the extent other proposals advocate a 5.5 MHz channel bandwidth to accommodate broadband; Ericsson recommends that the Commission not adopt that aspect of the proposals.

²⁰ Ericsson notes that if the Commission consolidates narrowband operations and encourages broadband deployment, the existing guard bands will not be sufficient to protect public safety entities, especially the guard band located at 776-777 MHz, unless the Commission also adopts a paired-band architecture.

²¹ There are 7 licenses that guard band managers need to surrender in the B Block. The Commission should consider giving those licensees bidding credits for the 700 MHz auction.

²² If the duplex direction is not the same or adjacent networks serve divergent purposes, a guard band would be required. Even then, the B Block Guard Band should still be allocated to exclusive public safety use.

technology necessary to operate on the adjacent public safety spectrum that would accommodate broadband allocation. This design element could lower equipment costs for public safety users. For example, if the FCC adopts these changes, commercial equipment may be designed to operate in both commercial and public safety bands and public safety will benefit from economies of scale normally enjoyed only in commercial markets. The D Block equipment would only need to be tuned to allow use in the public safety bands.

Fifth, and finally, the Commission should create guard bands in the middle and upper end of each block of public safety spectrum to ensure that the public safety users are protected from interference from adjacent users. These guard bands will prevent interference between narrowband and broadband public safety users, as well as between public safety users and the then-adjacent commercial C Block users.²³ In effect, this would leave the 700 MHz band plan largely intact while still expanding the public safety blocks.

Whether the Commission adopts a paired-band assignment, the guard band at 776-777 MHz is insufficient to protect public safety operations in the 764-776 MHz band. Currently, commercial licensees operating in the C band (777-782 MHz) will have to relinquish a significant portion of bandwidth for additional internal guard band protection to meet the stringent co-existent technical rules. One possibility would be to reallocate various spectrum blocks in the Upper 700 MHz band to increase the guard band to the

²³ Public safety entities could still offer a variety of services in these guard bands.

equivalent size of the B Block guard bands. However, that solution fails because the guard band at 776-777 MHz cannot be increased in size without violating the 30 MHz base/mobile duplex gap for public safety and making substantive changes to the commercial spectrum allocation.²⁴ The solution therefore is to create the guardband in the public safety block at 775-776 MHz, as proposed previously. The resulting combination of the guard bands at 775–776 MHz and 776–777 MHz create the necessary frequency separation between public safety narrowband operation in the base transmit and the C block at 777–782 MHz.

Overall, Ericsson’s plan contains elements similar to existing proposals, but achieves the Commission’s goals more effectively. Like the Optimization Plan and the White Paper, Ericsson’s plan consolidates the narrowband channels to increase spectrum efficiency and accommodates broadband technologies. However, because it only makes minimal changes to the Upper 700 MHz Band Plan, the Ericsson plan does not disrupt the design and deployment of products and services in the band (i.e., by reallocating commercial blocks, changing public safety duplex gap, etc.). It encourages the development of interoperable products for public safety users, particularly by setting rules for duplex direction and aligning commercial and public safety spectrum allocations. The plan therefore ensures that products will be designed to serve both the public safety and the commercial markets,

²⁴ Because public safety entities use reverse-banding where base station transmitters would occupy the lower paired channel blocks, the Commission may assume the commercial C and D Block licensees will follow suit. Doing otherwise will only increase the cost of the equipment and make the spectrum use more inefficient.

giving public safety users access to a wide array of commercial services and functionality and allowing both public safety and commercial users to benefit from economies of scale.

The Ericsson plan makes several other critical improvements. It encourages public safety users to maximize efficient spectrum use by allocating 5 MHz to accommodate broadband technologies. In addition, the Ericsson plan provides more spectrum for public safety than the other plans, as the former B Block guard bands would be allocated for exclusive public safety use. Finally, the Ericsson plan enhances while minimizing changes to the remaining guard bands so that they can continue to serve as effective interference shields for public safety users, reducing the potential for interference while keeping coordination and equipment costs reasonable.

C. The Benefits of Relocating the Narrowband Channels Far Outweigh Other Concerns.

The Commission asks for comment on its tentative conclusion that it should not shift narrowband channels unless certain issues involved in moving the channels can be resolved expeditiously.²⁵ Ericsson understands the Commission's concerns regarding the consequences of moving narrowband channels, but submits that these issues can be reasonably addressed. Overall, the benefit of improving the protection of public safety operations while providing more efficient use of spectrum and accommodating broadband for public safety use far outweighs the concerns.

²⁵ See *NPRM* ¶ 46.

Ericsson understands the Commission's concern regarding the potential costs of moving the narrowband channels, and reprogramming existing 700/800 MHz public safety radios.²⁶ These issues can be resolved expeditiously. The costs and work involved in moving and consolidating the narrowband allocations will be relatively minimal.²⁷ As Motorola points out, new mobiles/portables deployed can operate on a new plan by simple code plug programming, with no change required in hardware or firmware.²⁸ For new units fielded but not yet operating on 700 MHz, public safety will not incur any new incremental costs. Code plug programming will need to be performed anyway, even if the plan is not changed.²⁹ Additionally, agreements are underway for the existing channel plan with Mexico, but they have not been finalized.³⁰ Negotiators could incorporate these modifications as they move toward finalizing the agreements. The Commission should not let these concerns override appropriate decisions on the Band Plan, when so much can be gained by the relocation.³¹

²⁶ See *NPRM* ¶ 46. The Commission has also expressed concern that amended or new agreements may need to be negotiated with Canada and Mexico before narrowband channels can be relocated. *Id.* The Commission notes, though, that negotiations with Mexico are underway, but have not been finalized. *Id.* at fn. 109.

²⁷ See Letter from Steve B. Sharkey, Director, Spectrum and Standards Strategy, Motorola, to Marlene H. Dortch, Secretary, FCC, WT Docket Nos. 96-86, 06-150, 06-169 (Oct. 4, 2006) at 3.

²⁸ *Id.*

²⁹ *Id.*

³⁰ See *NPRM* at n.109.

³¹ Additionally, Congress set aside \$1 billion from the 700 MHz auction for public safety interoperable communications. See DTV Act § 3006, 120 Stat. 24. NTIA may establish a grant program to assist public safety agencies "in the acquisition of, deployment of, or training for the use of interoperable communications systems that utilize, *or enable interoperability with* communications systems that can utilize, reallocated public safety spectrum for radio communication." See *id.* § 3006(a)(1) (emphasis added). The term "reallocated public safety spectrum" refers to the 764-776 and 794-806 MHz bands. It is

IV. THE COMMISSION SHOULD MODIFY ITS SERVICE RULES FOR THE GUARD BANDS.

In the *NPRM*, the Commission asks several questions regarding changes to its Guard Bands service rules. In particular, the Commission asks whether it should extend its Secondary Markets policies to the Guard Bands or increase flexibility for band managers through other means, such as by allowing licensees to deploy cellular architectures.

Ericsson supports providing additional flexibility to Guard Band Managers to promote more efficient use of the spectrum. Certain Guard Band Managers have advocated replacing the Guard Band Manager rules with the Secondary Markets regime, commenting that the existing rules' constraints have resulted in inefficient use of spectrum, in contrast to the Commission's more recent efforts to provide licensees greater flexibility.³² Ericsson concurs that the Commission should replace its Guard Band Manager rules with its Secondary Markets regime to provide licensees greater flexibility. By extending Secondary Markets policies to the Guard Bands, the Commission can provide flexibility without any concerns that its measures will be impacted by time constraints inherent in planning for the January 28, 2008 auction deadline.

possible that public safety agencies could request money when a grant program is established to cover at least part of the cost of changing out or upgrading equipment to facilitate interoperability for public safety.

³² *Id.* ¶21.

Ericsson also supports consideration of proposals to eliminate the cellular architecture restriction³³ as long as lifting the restriction will not compromise the Guard Bands' preeminent purpose to prevent harmful interference to public safety or create additional co-existence concerns with licensees operating in spectrum allocated to commercial use.

As the Commission notes, Access/Pegasus contend that interference is not caused by a cellular architecture *per se*, but rather by any single low-power, low antenna height transmitter that provides relatively high field intensity in geographic areas where the desired public safety signal is weak.³⁴ Therefore, Access/Pegasus proposes adding a power flux density (PFD) limit, together with improved receiver technology for public safety equipment, in lieu of the cellular architecture restriction.

Ericsson agrees that a more restrictive PFD limit may enhance interference protection afforded to public safety spectrum if the Commission lifts the cellular architecture restriction. The Commission should take these factors into account when balancing whether the cellular architecture limit should be removed.

V. CONCLUSION.

³³ The Commission defined a cellular system architecture as "one where large geographic service areas are segmented into many smaller areas or cells, each of which uses its own base station, to enable frequencies to be reused at relatively short distances." *See NPRM* n.60 (citing *In the Matter of Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, WT Docket No. 99-168, Second Report and Order, 15 FCC Rcd. 5299, 5306 ¶ 14 n. 34 (2000)) The Commission noted that its definition is similar to that established in 47 C.F.R. § 22.99. *Id.*

³⁴ *See NPRM* ¶ 26.

Ericsson asks the Commission to consider its proposed revisions to the Upper 700 MHz Band Plan. Ericsson's plan maximizes spectrum efficiency, commercial and public safety broadband use, and provides greater interference protection, with few changes to the existing Band Plan. Most importantly, public safety agencies need broadband solutions that the commercial sector can provide. The Commission should not pass up the opportunity to accommodate public safety broadband adjacent to commercial spectrum. Accomplishing this critical goal requires only minor changes to the existing allocation and should not impact the timing or plans for the upcoming auction.

Ericsson supports providing additional flexibility to the Guard Band Managers by replacing the Guard Band Manager rules with the Secondary Markets regime and possibly through other changes in service rules. It also supports reallocating the Nextel guard band licenses for exclusive public safety use. Overall, new developments have created a timely opportunity to make changes in the upper 700 MHz Band Plan and Guard Band service rules that will go far to achieve important Commission goals. The Commission should make changes that accomplish these goals most effectively, and not let other concerns override important public policy objectives.

Respectfully submitted this 23rd day of October, 2006.

Mark Racek, Director, Spectrum
Policy
Ericsson Inc
1634 I Street, N.W., Suite 600
Washington, D.C. 20006-4083
Telephone: (202) 783-2200
Facsimile: (202) 783-2206

Elisabeth H. Ross
Birch, Horton, Bittner & Cherot
1155 Connecticut Avenue, N.W.
Suite 1200
Washington, D.C. 20036
Telephone: (202) 659-5800
Facsimile: (202) 659-1027

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