

March 29, 2007

*Via Electronic Filing*

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

Re: WT Docket Nos. 96-86, 06-150, and 06-169  
*Written Ex Parte*

Dear Ms. Dortch:

Ericsson recently submitted a letter to the Commission<sup>1</sup> that incorporates many of the features of the Broadband Optimization Plan (“BOP”) proposed by Access Spectrum, LLC, Columbia Capital III, LLC, Intel Corporation and Pegasus Communications Corporation in the above-referenced dockets. The Ericsson plan (“Reclamation Plan”), however, differs from the BOP in certain respects, with an inferior result for both public safety and commercial spectrum. This letter explains the strengths and weaknesses of the Reclamation Plan, and demonstrates why the BOP remains the best choice for providing robust nationwide public safety broadband capabilities and is therefore understandably the option endorsed by the overwhelming majority of public safety agencies, including the International Association of Chiefs of Police, the International Association of Fire Chiefs, the Association of Public-Safety Communications Officials-International, and the National Public Safety Telecommunications Council.<sup>2</sup>

First, Ericsson should be applauded for taking seriously some of the concerns expressed by Public Safety related to the consolidation of public safety narrowband spectrum. It also

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<sup>1</sup> Letter to Marlene H. Dortch, FCC Secretary, from Elisabeth H. Ross on behalf of Ericsson Inc., WT Docket Nos. 96-86, 06-150 and 06-169 (March 21, 2007) (“Ericsson Letter”).

<sup>2</sup> See, e.g., Letter to Fred Campbell, Chief, Wireless Telecommunications Bureau, FCC, from Wanda McCarley on behalf of the Association of Public-Safety Communications Officials-International, Alan Caldwell on behalf of the International Association of Fire Chiefs, and Harlin McEwen on behalf of the International Association of Chiefs of Police, the Major Cities Chiefs Association, the Major County Sheriffs’ Association and the National Sheriffs’ Association, WT Docket Nos. 96-86 and 06-169 (March 8, 2007); see also Letter to Marlene H. Dortch, FCC Secretary, from Vincent R. Stile, Chair, National Public Safety Telecommunications Council, WT Docket Nos. 96-86, 06-150 and 06-169 and PS Docket No. 06-229 (Feb. 22, 2007); see also Letter to Fred Campbell, Chief, Wireless Telecommunications Bureau, FCC, from Vincent R. Stile, Chair, National Public Safety Telecommunications Council, WT Docket Nos. 96-86, 06-150 and 06-169 and PS Docket No. 06-229 (March 14, 2007).

should be commended for recognizing the benefits that accrue to Public Safety from a plan that uses the current commercial guard bands to advance Public Safety's broadband needs. In fact, Ericsson's letter supports many of the BOP's features. Unlike other alternatives that purport to benefit Public Safety, the Reclamation Plan recognizes that:

- Public safety broadband spectrum can and should be located directly adjacent to commercial broadband spectrum which is vital to the development of effective public-private partnerships;<sup>3</sup>
- Public Safety benefits by controlling its own guard bands;<sup>4</sup>
- It is essential to resolve the interference issue for states that border Canada and not simply gloss over the significant issues facing public safety agencies in the fourteen Canadian border states;
- Public Safety benefits from a 1 MHz talk-around channel for public safety use;<sup>5</sup> and
- The Commission has the authority to reallocate the B Block from commercial to public safety use.<sup>6</sup>

However, in spite of Ericsson's support for many of the BOP's features, the Reclamation Plan is inferior to the BOP in a variety of key respects, and should not be adopted. First, the Reclamation Plan would over-allocate spectrum to guard band operations. Its proposal to devote 2 MHz of spectrum to the guard band between public safety narrowband operations and the commercial C block is unnecessary to adequately protect public safety narrowband and wideband operations from interference. In the *Public Safety 700 MHz Broadband* proceeding, all three proposals considered are based on the determination that 1 MHz is a sufficient guard

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<sup>3</sup> See Ericsson Letter at 2, 4, 5.

<sup>4</sup> See *id.* at 2, 6.

<sup>5</sup> See *id.*

<sup>6</sup> Access Spectrum and Pegasus have explained on several occasions the basis of the FCC's authority to reallocate the B Block to public safety use. See, e.g., Letter to Marlene H. Dortch, FCC Secretary, from Michael Gottdenker and Ruth Milkman on behalf of Access Spectrum, LLC and Marshall Pagon and Kathleen Wallman on behalf of Pegasus Communications Corporation, WT Docket Nos. 96-86, 06-150 and 06-169, at 4-7 (March 21, 2007) ("Access Spectrum/Pegasus March 21, 2007 Letter"); Letter to Marlene H. Dortch, FCC Secretary, from Ruth Milkman on behalf of Access Spectrum, LLC and Kathleen Wallman on behalf of Pegasus Communications Corporation, WT Docket Nos. 96-86 and 06-169 (March 2, 2007); Letter to Marlene H. Dortch, FCC Secretary, from Ruth Milkman, Counsel to Access Spectrum, LLC and Kathleen Wallman, Adviser to Pegasus Communications Corporation, WT Docket Nos. 96-86, 06-150 and 06-169 (Dec. 12, 2006); Reply Comments of Access Spectrum, LLC and Pegasus Communications Corporation, WT Docket Nos. 96-86 and 06-169 at 20-21 (Nov. 13, 2006) ("Access Spectrum/Pegasus Nov. 13, 2006 Reply Comments").

band to protect public safety narrowband operations from interference caused by adjacent public safety broadband operations.<sup>7</sup> There is nothing in the record supporting the necessity of guard bands exceeding 1 MHz, and Ericsson's plan offers no technical support for such an allocation. Further, in adopting the current band plan, the Commission reached a similar conclusion, placing a 1 MHz A Block guard band between public safety narrowband operations and the commercial C Block.<sup>8</sup> In fact, the National Public Safety Telecommunications Council criticized Ericsson's Reclamation Plan, in part because of its excessive allocation of spectrum to guard bands.<sup>9</sup> This point—that 1 MHz is sufficient to separate broadband operations from narrowband and wideband operations—has been so thoroughly and widely accepted that it has become a given in the discussion over the configuration of the Upper 700 MHz band.<sup>10</sup> As a result, the BOP provides for guard bands of 1 MHz, thereby making additional spectrum available for broadband use by Public Safety and commercial entities.

The Reclamation Plan also fails to resolve important issues of implementation that the BOP resolves. For example, although the Reclamation Plan proposes to consolidate the public safety narrowband spectrum, it fails to address several of the preconditions Public Safety

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<sup>7</sup> *The Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, Eighth Notice of Proposed Rulemaking, 21 FCC Rcd 3668, ¶¶ 15-21 (2006); *see also* Letter from Vincent R. Stile, Chair, National Public Safety Telecommunications Council to Michael J. Wilhelm, FCC, WT Docket Nos. 05-157 and 96-86, at 2 (Feb. 6, 2006, filed Feb. 7, 2006) (“[O]ur analysis determined it important to maintain a .975 MHz guard band channel between broadband and other operations.”); “700 MHz Wideband Interoperability” at 30 (Oct. 26, 2005), attached to Letter from Steve B. Sharkey, Motorola, to Marlene H. Dortch, FCC Secretary, WT Docket Nos. 96-86 and 05-157 (Oct. 27, 2005) (“A 1 MHz guardband is needed between a 1.25 MHz BB channel and the narrowband channels”).

<sup>8</sup> *Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules*, First Report and Order, 15 FCC Rcd 476, ¶ 34 (2000) (establishing A Block of 1 MHz paired as guard band “in order to protect the immediately adjoining public safety licensees on Channels 63, 64, 68, and 69 from harmful interference.”).

<sup>9</sup> *See* Reply Comments of the National Public Safety Telecommunications Council, WT Docket Nos. 96-86 and 06-169, at 4 (Nov. 13, 2006) (“Ericsson appears to state that one purpose of dedicating the additional 2 MHz to the public safety segment is to provide a 2 MHz guard band between broadband and narrowband operations. The record does not indicate that 2 MHz is necessary, there is a general consensus that approximately 1 MHz is an adequate guard band between broadband and other operations.”).

<sup>10</sup> Indeed, Access Spectrum and Pegasus have explained in great detail that the interference concerns raised by Verizon and AT&T (to which Ericsson refers) are unfounded. *See generally* Letter to Marlene H. Dortch, Secretary, Federal Communications Commission, from Michael Gottdenker, Andrew Rein, Ruth Milkman and Kenneth Boley on behalf of Access Spectrum, LLC and Marshall Pagon, Cheryl Crate, and Kathleen Wallman on behalf of Pegasus Communications Corporation, WT Docket No. 06-169 (Feb. 28, 2007); *see also* Access Spectrum/Pegasus March 21, 2007 Letter at 8-10.

attached to any consolidation of the narrowband spectrum, including funding for relocating narrowband systems and updating the CAPRAD database. Access Spectrum and Pegasus have committed to funding these items, but only if the BOP is adopted in its entirety.

In addition, the Reclamation Plan's proposal to use B Block spectrum to reconfigure the Upper 700 MHz band depends upon the willingness of existing B Block licensees to cooperate. The FCC holds only 80 percent of the outstanding B Block licenses. Access Spectrum's and Pegasus' support for using their B Block holdings to reconfigure the Upper 700 MHz band, including the public safety block, depends upon the acceptance of the BOP as a package<sup>11</sup> and would not be extended to implement the Reclamation Plan.

Finally, the Ericsson plan is inferior to the BOP because it would enable only 5 MHz paired for public safety broadband operations, rather than 5.5 MHz paired, as proposed in the BOP.<sup>12</sup> Access Spectrum and Pegasus have demonstrated the advantages of using 5.5 MHz building blocks.<sup>13</sup> Recently, a coalition comprised of Access Spectrum, EchoStar, DIRECTV, Google, Intel, Skype, and Yahoo! also expressed their support for, *inter alia*, the use of 5.5 MHz building blocks in the commercial spectrum, in this case with an 11 MHz pair and a 5.5 MHz pair.<sup>14</sup> Ericsson inexplicably claims that the *increased* bandwidth provided by 5.5 MHz blocks will not fulfill the spectrum requirements for 4G services.<sup>15</sup> It also argues that 5 MHz block sizes are now widely used and that commercial licensees in the Upper 700 MHz band are likely to deploy broadband technologies based on 5 MHz blocks.<sup>16</sup>

Ericsson's 5 MHz block proposal would unnecessarily restrict broadband technology choices and would foreclose the considerable benefits that would be available with a plan that

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<sup>11</sup> See Access Spectrum/Pegasus Nov. 13, 2006 Reply Comments at 19; *see also* Comments of Access Spectrum, LLC and Pegasus Communications Corporation, WT Docket Nos. 96-86 and 06-169, at 16-17 (Oct. 23, 2006).

<sup>12</sup> See Comments of Access Spectrum, L.L.C., Columbia Capital III, LLC, Intel Corporation, and Pegasus Communications Corporation, WT Docket No. 96-86 at 5-6 (June 6, 2006).

<sup>13</sup> See Comments of Access Spectrum, LLC, Columbia Capital III, LLC, Pegasus Communications Corporation, and Telcom Ventures, LLC, WT Docket Nos. 06-150 and 01-309 and CC Docket No. 94-102, at 11-23 (Sept. 29, 2006) ("Access Spectrum/Pegasus Sept. 29 Comments"); *see also* Declaration of Dr. Paul J. Kolodzy, Attachment B to Access Spectrum/Pegasus Sept. 29 Comments.

<sup>14</sup> See "The Coalition for 4G in America – Optimizing the 700 MHz Band for Next Generation Technologies and Networks," attached to Letter to Marlene H. Dortch, FCC Secretary, from Ruth Milkman, Counsel to Access Spectrum, LLC, WT Docket Nos. 96-98, 06-150 and 06-169 (March 6, 2007) ("Optimizing the 700 MHz Band for Next Generation Technologies and Networks").

<sup>15</sup> Ericsson Letter at 2.

<sup>16</sup> *Id.* at 3.

uses 5.5 MHz building blocks. Ericsson ignores the fact that the Commission has designated 5.5 MHz blocks at 2.5 GHz, and that several substantial and credible commercial entities, including operators such as the DBS companies, have indicated a clear preference for spectrum blocks based on a 5.5 MHz building block.<sup>17</sup> Although it prefers 5 MHz block sizes, Ericsson has not shown that 5 MHz technologies would be affected negatively in any way by the adoption of 5.5 MHz block sizes. Ericsson's opposition to 5.5 MHz blocks is puzzling given its acceptance of 6 MHz blocks in the Lower 700 MHz band. Ericsson writes that "LTE systems are designed to operate in spectrum allocations of varying sizes, including 1.25 MHz, 5 MHz, 10 MHz, 15 MHz and 20 MHz . . . but not in 5.5 MHz."<sup>18</sup> Missing from this list is any mention of 6 MHz blocks. Ericsson also fails to explain why an operator deploying in 1.25 MHz increments would not be able to fit four 1.25 MHz channels into 5.5 MHz or 6 MHz blocks. If additional spectrum is somehow detrimental or irrelevant, Ericsson's position would argue for re-channelization of the Lower 700 MHz band into 5 MHz blocks with 1 MHz internal "buffer spaces" to lessen interference. But, Ericsson is silent on the Lower 700 MHz band. Quite simply, the adoption of a 5.5 MHz block size for Public Safety would increase broadband technology choices and corresponding benefits without foreclosing the deployment of technologies that are based on 5 MHz block sizes. If a 5.5 MHz block size is adopted for Public Safety, Ericsson suffers no objective harm, but its technology may be at a competitive disadvantage when compared to 4G technologies.<sup>19</sup> The Commission should allow the public safety community to choose which technologies to deploy and should not restrict those choices unnecessarily.

While the Reclamation Plan incorporates many of the desirable features of the BOP, the Reclamation Plan also wastes spectrum, unnecessarily restricts technology choice, and fails to address significant implementation issues affecting Public Safety and the current A and B Block licensees. For the foregoing reasons, the Commission should reject the Reclamation Plan and should proceed promptly to adopt the BOP.

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<sup>17</sup> See, e.g., Letter to Marlene H. Dortch, Secretary, Federal Communications Commission, from Bradley K. Gillen on behalf of EchoStar Satellite, L.L.C., WT Docket Nos. 06-150, 06-169 and 96-86 (March 7, 2007); Optimizing the 700 MHz Band for Next Generation Technologies and Networks.

<sup>18</sup> Ericsson Letter at 3.

<sup>19</sup> A recent "Light Reading" article may shed some light on Ericsson's interest in promoting 5 MHz rather than 5.5 MHz blocks advocated by Intel and other companies interested in the deployment of WiMAX. See "Ericsson Pulls WiMax Plug," *Light Reading* (March 22, 2007), available at: <[http://www.lightreading.com/document.asp?doc\\_id=120050](http://www.lightreading.com/document.asp?doc_id=120050)> ("Ericsson's worst nightmare is that big operators will decide to go for mobile WiMax instead of waiting for long-term evolution (LTE) to develop, which is the next technology upgrade.").

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Pursuant to the Commission's rules, this letter is being submitted for inclusion in the public record in the above-referenced proceedings.

Sincerely,

/s/ Ruth Milkman

Ruth Milkman  
Lawler, Metzger, Milkman & Keeney, LLC  
2001 K Street NW, Suite 802  
Washington, DC 20006  
(202) 777-7700  
*Counsel to Access Spectrum, LLC*

/s/ Kathleen Wallman

Kathleen Wallman  
Wallman Consulting, LLC  
9332 Ramey Lane  
Great Falls, VA 22066  
(202) 641-5387  
*Adviser to Pegasus Communications Corporation*

Michael I. Gottdenker  
Chairman and CEO  
Access Spectrum, LLC  
2 Bethesda Metro Center  
Bethesda, MD 20814-6319

Marshall W. Pagon  
Chairman and CEO  
Pegasus Communications Corporation  
225 City Avenue, Suite 200  
Bala Cynwyd, PA 19004

cc: Matthew Berry  
John Branscome  
Fred Campbell  
Jeff Cohen  
Paul D'Ari  
Samuel Feder  
Angela Giancarlo

Aaron Goldberger  
Bruce Gottlieb  
David Horowitz  
Cathleen Massey  
Barry Ohlson  
James Schlichting  
Dana Shaffer