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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150
Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems	)	CC Docket No. 94-102
Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones	)	WT Docket No. 01-309
Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services	)	WT Docket No. 03-264
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules	)	WT Docket No. 06-169
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

REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING

Adopted: April 25,2007 Released: April 27,2007

By the Commission: Chairman Martin and Commissioners Copps, Adelstein, Tate and McDowell issuing separate statements.

Comment Date: [21 days after publication in the Federal Register]
Reply Comment Date: [28 days after publication in the Federal Register]

TABLE OF CONTENTS

Heading Paragraph #

I. INTRODUCTION 1
II. BACKGROUND 13

A. DTV Transition and Reclamation of the 700 MHz Band 14
B. 700 MHz Commercial Services Proceeding 18
C. 700 MHz Guard Bands Proceeding 23
D. 700 MHz Public Safety Proceeding 25
E. Frontline Proposal 30
III. REPORT AND ORDER 31
A. 700 MHz Commercial Services 32
1. Background 34
2. Discussion 37
a. Facilitating Access to Spectrum and Provision of Service to Consumers 37
(i) Mix of Geographic Service Area Sizes 38
(ii) Secondary Markets 50
b. Auctions-Related Issues 56
(i) Aggregating Licenses 56
(ii) Bidding Preferences 59
(iii) Competitive Bidding and Aggregating New Licenses 67
(iv) Modifications to the Tribal Land Bidding Credit 70
c. Additional Rules for Licensees 73
(i) Criteria for Renewal 73
(ii) License Terms 78
(iii) Power Limits for Lower 700 MHz Band and Upper 700 MHz Commercial Services Band Base Stations 88
(iv) Power Limit Issues in WT Docket No. 03-264 103
(v) Other Technical Issues 107
(vi) 911/E911 Requirements 120
(vii) Hearing Aid-Compatible Wireless Handsets 137
B. 700 MHz Guard Bands 151
1. Background 152
2. Discussion 156
a. Adoption of Secondary Markets Spectrum Leasing Rules 157
b. Use and Operational Flexibility 163
IV. FURTHER NOTICE OF PROPOSED RULEMAKING 169
A. Introduction 169
B. Discussion 171
1. 700 MHz Band Commercial Services 176
a. Lower 700 MHz Band 177
b. Upper 700 MHz Commercial Services Band 182
(i) Proposals Based on Elimination of the Guard Band B Block 184
(ii) Proposals Based on Modified 700 MHz Guard Bands 194
c. Performance Requirements 207
d. Incumbent Eligibility 221
2. 700 MHz Guard Bands 222
a. Band Plan Proposals 222
b. Other Guard Band Issues 243
3. Competitive Bidding Procedures 246
4. 700 MHz Public Safety Spectrum 250
a. Broadband 251
b. Band Plan Issues 254
c. Power Limits for Public Safety Broadband 266
5. Frontline's Proposal 268
V. PROCEDURAL MATTERS 291
A. Final Regulatory Flexibility Analysis 291

B. Final Paperwork Reduction Act of 1995 Analysis 292
C. Initial Regulatory Flexibility Analysis 293
D. Initial Paperwork Reduction Act Analysis of 1995 Analysis 294
E. Other Procedural Matters 295
1. Ex Parte Presentations 295
2. Comment Filing Procedures 296
3. Accessible Formats 299
VI. ORDERING CLAUSES 300
APPENDICES:
Appendix A – List of Comments and Reply Comments
Appendix B – Rule Changes
Appendix C – Final Regulatory Flexibility Analysis
Appendix D – Initial Regulatory Flexibility Analysis

I. INTRODUCTION

1. In this Report and Order and Further Notice of Proposed Rulemaking ("Further Notice"), we address rules governing wireless licenses in the 698-806 MHz Band (herein, the "700 MHz Band"). This spectrum currently is occupied by television broadcasters in TV Channels 52-69 and is being made available for wireless services, including public safety and commercial services, as a result of the digital television ("DTV") transition.

2. We are revisiting these rules due to the significant changes that have occurred over the past several years in the statutory framework governing this spectrum, the continuing advances in a rapidly developing market for wireless communications, and the needs of the public safety community. Perhaps most importantly, the Digital Television Transition and Public Safety Act of 2005 ("DTV Act")' set a firm deadline for the end of the DTV transition of February 17,2009, at which time this spectrum will be fully available for public safety as well as commercial wireless services. It is incumbent on the Commission to take all the steps necessary to make this spectrum effectively available to both public safety as well as commercial licensees as of the end of the DTV transition. In addition, the DTV Act established two specific statutory deadlines for the auction of the 60 megahertz of "recovered analog" spectrum in the 700 MHz Band (1) the auction must begin no later than January 28,2008, and (2) the auction proceeds must be deposited in the Digital Television Transition and Public Safety Fund by June 30,2008.

3. The past several years also have seen substantial changes in the wireless communications market. Many innovative wireless services and technologies have emerged, while at the same time prices have fallen, to the benefit of consumers. For example, in the past five years, there have been 100 million new subscribers to mobile telephony services? There also has been unprecedented growth in the demand for and the provision of wireless broadband services. This may be seen in the number of Americans using mobile devices capable of accessing the Internet at broadband speeds, which has grown from fewer than 100,000 in June 2000 to over 11 million in June 2006.' Among the providers serving these consumers,

[1] *See* Deficit Reduction Act of 2005, Pub. L. No. 109-171, 120 Stat. 4 (2006) ("DRA"). Title III of the DRA is the DTV Act.

'During the past five years, the number of new mobile telephone subscribers rose by more than 100 million, from 118.4 million in June 2001 to 219.4 million in June 2006. This represents an 85 percent increase in the total number of subscribers. *See* "Annualized Wireless Industry Survey Results – June 1985 to June 2006," CTIA's Semi-Annual Wireless Industry Survey, CTIA – The Wireless Association, *available at* http://files.ctia.org/pdf/CTIA_Survey_Year_End_2006_Graphics.pdf

[3] *High-speed Services for Internet Access: Status as of June 30, 2006,* Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission (Jan. 2007) at Table 1.

those offering mobile wireless broadband services now operate in counties containing 63 percent of the population of the country?

4. Similarly, the needs of those who use public safety spectrum also have evolved in recent years. As described below, we are particularly cognizant of the benefits to the public safety community of wireless broadband services. We expect that modern public safety services will increasingly depend on the advanced communications provided by wireless broadband technology to enable public safety entities to perform their vital safety-of-life and other critical roles.

5. The Commission has been considering rules related to the use of this spectrum in three ongoing proceedings: (1) the 700 MHz Commercial Services proceeding,' (2) the 700 MHz Guard Bands proceeding: and (3) the 700 MHz Public Safety proceeding.' Because decisions on certain issues in the three proceedings are potentially interrelated, we address them jointly in this Report and Order and Further Notice. In so doing, we seek to promote access to 700 MHz Band spectrum and the provision of service to consumers across the country, including in rural areas, as well as opportunities for broadband service for public safety users. We are seeking expedited comment on the issues in the Further Notice, with the intent of finalizing the key decisions quickly given our auction-related statutory deadlines.

6. In the Report and Order, we make a wide variety of decisions on key issues presented in the 700 MHz Commercial Services and the 700 MHz Guard Bands proceedings.' With regard to the 700 MHz Commercial Services proceeding, we decide to adopt a mix of geographic license area sizes for the commercial services, including Cellular Market Areas (CMAs), Economic Areas (EAs), and Regional Economic Areas (REAGs). With regard to auctions-related issues, we find that our existing competitive bidding rules do not require modification for purposes of an auction of commercial 700 MHz Band licenses. To minimize uncertainty for licensees in this band, we eliminate the rules that permit comparative hearings for license renewal and clarify the requirements and procedures of the renewal process for 700 MHz Band licensees. In addition, we shift the termination date for initial license terms from January 15,2015, to February 17,2019, thus giving licensees an initial term not to exceed ten years after the end of the DTV transition. With regard to radiated power limits, we generally adopt a power spectral density (PSD) model, with certain limitations, to provide greater operational flexibility to

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[4] The FCC estimates that as of mid-2006, the mobile broadband network technologies CDMA EV-DO and WCDMAMSDPA had been deployed in counties containing 63 percent and 20 percent of the U S. population, respectively. *See* Implementation of Section 6002(b) of the Omnibus Budget Reconciliation Act of 1993, WT Docket No. 06-17, *Eleventh Report,* 21 FCC Rcd 10947, 10995 ¶ 117 (2006) *(Eleventh CMRS Competition Report).*

[5] *See* Service Rules for the 698-749,747-762 and 777-792 MHz Bands, WT Docket No. 06-150, Revision of the Commission'sRules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems and Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, CC Docket No. 94-102, WT Docket No. 01-309, *Notice* of *Proposed Rule Making, Fourth Further Notice of Proposed Rule Making, and Second Further Notice of Proposed Rule Making*, 21 FCC Rcd 9345 (2006) (700 *MHz Commercial Services Notice).*

[6] *See* 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 and 96-86, *Notice* of *Proposed Rule Making,* 21 FCC Rcd 10413 (2006) (700 *MHz Guard Bands Notice).*

[7] *See* Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, PS Docket No. 06-229, WT Docket No. 96-86, *Ninth Notice of Praposed Rulemaking*, 21 FCC Rcd 14837 (2006) (700 *MHz Public Safety Ninth Notice*); 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 (2006) (700 *MHz Public Safety Eighth Notice).*

[8] *See infra* Section III.

licensees operating at wider bandwidths, and we provide for higher radiated power levels for these 700 MHz Band licensees operating in rural areas. We continue to allow a 50 kW ERF' level for base station operations fot already auctioned licenses and for unpaired spectrum in the "Lower 700 MHz Band" (TV Channels 52-59) but conclude that we should modify such power limits for paired spectrum in that Band to match the limits adopted for the "Upper 700 MHz Band" (TV Channels 60-69) in order to better enable mobile service on that paired spectrum. In addition, in order to accommodate emerging technologies, we permit these 700 MHz licensees to meet radiated power limits on an average, rather than peak, basis?

7. In the 700 MHz Commercial Services proceeding, we also modify our 911/E911 rules to remove the service- and band-specific limitations on the applicability of those requirements. As amended, these rules will apply to all commercial mobile radio services (CMRS), no matter what spectrum is employed, to the extent that a service meets the scope requirements in our current rules." Similarly, we find generally that all digital CMRS providers, including providers in the 700 MHz, Advanced Wireless Services (AWS), and the Broadband Radio Service/Educational Broadband Service (BRS/EBS) bands, along with manufacturers of handsets capable of providing such services, should be subject to our hearing aid compatibility requirements to the extent that a service satisfies the scope provision in our current rules, and we amend our rules to incorporate this finding. By statute, however, we cannot impose hearing aid compatibility requirements for a band or service until applicable technical standards have been established. In recognition of the pressing need to develop applicable technical standards in certain frequency bands for which service rules have been or will soon be established, and given that the process of developing such standards has already commenced, we establish a 24-month timetable for the development of standards in these bands by all interested stakeholders."

8. With regard to the 700 MHz Guard Bands proceeding, we adopt certain measures to encourage the most effective and efficient use of the spectrum designated as guard bands in the 700 MHz Band ("Guard Bands spectrum"). Specifically, we replace the current "band manager" leasing regime with the spectrum leasing policies and rules adopted in the Secondary Markets proceeding to provide Guard Band licensees and spectrum users additional flexibility to enter into spectrum leasing agreements. We also eliminate restrictions that prevented Guard Band licensees from using their spectrum as a wireless service provider and restricted their ability to lease to affiliates.[12]

9. In the Further Notice, we make proposals that are intended to enable the Commission to offer at auction a wide variety of licenses and best enable the provision of service to consumers across the country. We propose not to alter the spectrum blocks as currently aligned in the Lower 700 MHz Band, and to license the A Block on an EA basis, the B Block on a CMA basis, and the E Block on an REAG basis. As regards the commercial spectrum in the Upper 700 MHz Band, we seek comment on several band plans, and on the appropriate sizes of the license blocks and geographic service areas for these licenses.. We also propose new performance requirements for the unauctioned commercial licenses in the 700 MHz Band based on the use of specific geographic coverage benchmarks.

10. We tentatively conclude not to adopt certain proposals in connection with the 700 MHz Guard Bands spectrum, advanced by parties seeking a restructuring of the existing band plan for the Upper 700 MHz Band that would include a reallocation of the Guard Band spectrum, including the

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[9] See *infra* Section III.A.

[10] In conformity with the Commission's decision in the ***E911 Scope Order,*** however, we will continue to exclude Mobile Satellite Service (MSS) from the specific requirements of **47** C.F.R. § **20.18. See** Revision of the Commission's Rules **to** Ensure Compatibility with Enhanced **911** Emergency Calling Systems, CC Docket **94-102,** IB Docket No. **99-67, *Report and Order and Further Notice of Proposed Rulemaking*,** 18 FCC Rcd 25340, 25347-57 ¶¶ **20-39 (2003) *(E911 Scope Order).***

[11] ***See infra*** Section III.A.2.c.

[12] *See infra* Section III.B.

"Broadband Optimization Plan" (hereinafter the "BOP").[13] While we are seeking to establish rules and policies that provide licensees greater flexibility where possible, we tentatively conclude that, at least before the end of the DTV transition, we do not have the legal authority to adopt such band reallocation proposals and that such proposals would not serve the public interest. We do, however, seek comment on other measures to promote the most efficient and effective use of the Guard Bands spectrum. Specifically, we seek comment on what additional rule changes we should make to the 700 MHz Guard Bands in the event that we decide not to adopt our proposed commercial services band plan or other proposals under consideration.

11. With regard to the 700 MHz Band spectrum allocated to public safety ("Public Safety spectrum"), we tentatively conclude to redesignate the wideband spectrum to broadband use consistent with a nationwide interoperability standard, and to prohibit wideband operations on a going forward basis.[14] Should we end up adopting this broadband approach, we tentatively conclude to consolidate the 700 MHz Public Safety spectrum, with the narrowband spectrum being consolidated to the top of the public safety allocation, and the broadband spectrum located at the bottom of the public safety allocation.'' These tentative conclusions, in conjunction with our proposal in the 700 *MHz* Public ***Safety Ninth Further Notice*** to establish a national public safety licensee, further our efforts to establish nationwide interoperable wireless broadband for public safety.

12. Finally, we seek comment on a proposal, the "Public Safety Broadband Deployment Plan," recently filed by Frontline Wireless, LLC ("Frontline").[16] While we have an extensive record on many of the issues raised by Frontline, such as the appropriate size of spectrum blocks, we do not have a record on some of the significant service rule changes Frontline proposes that we adopt for a commercial spectrum block that would be located just adjacent to the current 700 MHz Guard Band B Block. We seek comment on aspects and implications of the Frontline proposal to establish such a record.[17]

II. BACKGROUND

13. In this background section, we briefly discuss the DTV transition, which will reclaim the 700 MHz Band for new uses, including commercial and public safety services. We then describe the portions of the 700 MHz Band that will be associated with new commercial and public safety services, as well as guard bands to protect public safety. Finally, we describe a new proposal, very recently submitted by Frontline, that would modify the service rules associated with part of the commercial spectrum.

A. DTV Transition and Reclamation of the 700 MHz Band

14. The frequencies considered in this order are part of 108 megahertz of spectrum in the 700 MHz Band (Television Channels ***52-69*** in the ***698-806*** MHz band) that will be made available as part of the digital television (DTV) transition.'* By the end of this transition, all analog television transmissions in this band will have terminated, and all digital television transmissions will be in the spectrum occupied

[13] ***See infra*** Section N.B.2.

[14] ***See infra*** Section IV.B.4.

[15] ***See id.***

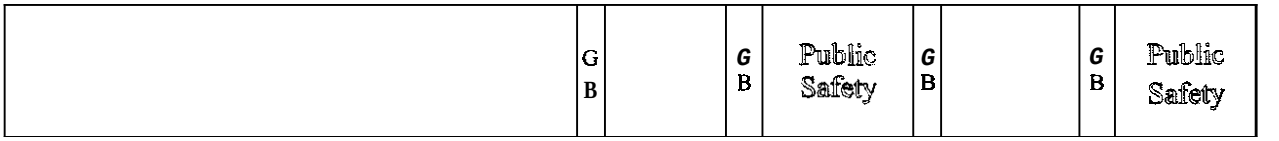
[16] ***See infra*** Section IV.B.5.

[17] ***See id.***

[18] ***See generally 700 MHz Commercial Services Notice; 700 MHz Guard Bands Notice; 700 MHz Public Safely Eighth Notice.***

currently by TV Channels 2-51 (the "core" TV broadcast spectrum). At that time, the 700 MHz Band will be available for new uses, including public safety, commercial, and other new radio services."

15. Prior to the DTV Act, the Commission had addressed in separate proceedings the reallocation of the 48 megahertz covering TV Channels 52-59 ("Lower 700 MHz Band")[20] and the 60 megahertz covering TV Channels 60-69 ("Upper 700 MHz Band"). The proceedings addressing the Upper 700 MHz Band divided this 60 megahertz into the 36 megahertz dedicated to commercial use," including the 6 megahertz comprising the Guard Bands spectrum:' and the 24 megahertz designated for public safety use.[23] Figure 1 shows the location of Commercial Services, Guard Band, and Public Safety spectrum within the 700 MHz Band.



16. The Balanced Budget Act of 1997 ("Balanced Budget Act") required the Commission to reallocate the Upper 700 MHz Band no later than January 1, 1998.[24] Specifically, the Balanced Budget Act mandated that the Commission allocate 24 megahertz of spectrum for public safety services in the Upper 700 MHz Band, while allocating the remaining 36 megahertz of spectrum for commercial use, to be assigned by competitive bidding.[25] In the Balanced Budget Act, Congress also directed the Commission to "reclaim and organize" additional spectrum beyond the Upper 700 MHz Band, and to do

[19] This recovery of spectrum from existing, analog broadcast use is an important objective of the DTV transition. *See* Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No. 87-268, *Sixth Further Notice of Proposed Rule Making,* 11 FCC Rcd 10968, 10977 ¶ 18 (1996).

[20] See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), GN Docket No. 01-74, *Report and Order*, 17 FCC Rcd 1022 (2002) *(Lower 700 MHz Report and Order);* Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), GN Docket No. 01-74, *Memorandum Opinion and Order*, 17 FCC Rcd 11613 (2002) *(Lower 700 MHz MO&O*).

[21] *See* Reallocation of Television Channels 60-69, the 746-806 MHz Band, ET Docket No. 97-157, *Report and Order,* 12 FCC Rcd 22953 (1998), *recon.* 13 FCC Rcd 21578 (1998) *(Upper 700 MHz Reallocation Order);* 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, *First Report and Order,* 15 FCC Rcd 476 (2000) *(Upper 700 MHz First Report and Order).*

[22] *See 700 MHz Guard Bands Notice,* 21 FCC Rcd at 10414 ¶ 1 n.1

[23] See *700 MHz Public Safety Ninth Notice,* 21 FCC Rcd at 14838-39 ¶¶ 5-6; *see generally 700 MHz Public Safety Eighth Notice.*

[24] *See* Balanced Budget Act of 1997, Pub. L. No. 105-33, 111 Stat. 251 5 3004 (1997) (adding new § 337 of the Communications Act); *Upper* 700 *MHz Reallocation Order,* 12 FCC Rcd at 22955 ¶ 5.

[25] *See* 47 U.S.C. § 337(a) (enacted by the Balanced Budget Act of 1997 § 3004, which added new Section 337(a) and established an initial timetable for conducting auctions).

so "in a manner consistent with the objectives" of Section 309(j)(3) of the Act.[26] While Congress did not specify the amount of spectrum to be reclaimed beyond the Upper 700 MHz Band, the Commission determined that all broadcasters using digital transmission systems could be accommodated in the core TV Channels 2-51. As a result, the 48 megahertz of spectrum in the Lower 700 MHz Band (698-746 MHz) would become available for new services through competitive bidding.[27]

17. In passing the DTV Act, Congress accelerated the DTV transition by establishing February 17,2009, as a new firm deadline for the end of the transition.[28] Congress also required the Commission to commence the auction of recovered analog broadcast spectrum no later than January 28, 2008, and deposit the proceeds of the auction in the Digital Television Transition and Public Safety Fund no later than June 30, 2008.[29] These statutory changes will effectively clear the spectrum in both the Upper and Lower 700 MHz Bands as of February 17,2009, and consequently eliminate any uncertainty regarding when this spectrum will be available for public safety, commercial, and other wireless services.

B. *700* MHz Commercial Services Proceeding

18. In the 700 MHz Commercial Services proceeding, we sought comment on the 78 megahertz of commercial spectrum in the 698-746,747-762, and 777-792 MHz bands ("700 MHz Commercial Services Band).)' The 700 MHz Band also currently includes six megahertz of commercial spectrum in the 746-7471776-777MHz and 762-7641792-794MHz bands, the 700 MHz Guard Bands spectrum, designed to protect users in the adjacent 700 MHz Public Safety spectrum. That public safety allocation comprises the remaining 24 megahertz in the 700 MHz Band, and consists of 12 megahertz of narrowband channels (voice and low speed data) and 12 megahertz of wideband (image/high speed data and slow scan video) communications channels. Figure 2 shows the current band plan for the Upper 700 MHz Band. Guard Band licenses (A and B Blocks) were assigned over the 52 Major Economic Areas (MEAs) and the remaining licenses (C and D Blocks) were assigned over the six Economic Areas Groupings (EAGs).[31] The A and B Blocks (Guard Bands) have been auctioned, while the C and D Blocks have not yet been auctioned.

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[26] 47 U.S.C. § 309(j)(14)(C)(i)(II) (2005). Among the objectives of Section 309(j) of the Act are "the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas;" "promoting economic opportunity and competition and ensuring that new and innovative technologies are readily accessible to the American people by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses, m a l telephone companies, and businesses owned by members of minority groups and women;" and the "efficient and intensive use of the electromagnetic spectrum." 47 U.S.C. § 309(j)(3).

[27] *See* Advanced Television Systems and Their Impact upon the Existing Television Broadcast Service, MM Docket No. 87-268, ***Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order,*** 13 FCC Rcd **7418**, 7435-36 ¶ 42 (1998) (***DTV MO&O of the Sixth Report and Order).*** The Commission stated that expanding the DTV core spectrum would permit recovery of 108 megahertz of spectrum at the end of the DTV transition period. ***Id.*** at 1436¶ 45.

[28] DTV Act § 3002. Prior to the DTV Act, analog broadcasters were required to cease operations in this band by December 31,2006, but the Commission was required to extend the end of this transition in certain circumstances. Specifically, extensions were to be granted at the request of broadcast licensees on a market-by-market basis if one or more of the four largest network stations or affiliates were not broadcasting in digital, if digital-to-analog converter technology was not generally available, or if 15 percent or more of television households were not receiving a digital signal. ***See*** 47 U.S.C. § 309(j)(14)(A)-(B) (2005).

[29] DTV Act §§ 3003-3004

[30] ***See generally 700 MHz Commercial Services Notice***

[31] With regard to the size of geographic service areas for the commercial spectrum in the Upper 700 MHz Band, the Commission determined that, based on the positions of commenters, the likely uses of this spectrum, and other (continued....)

A	C	D		B	Public Safety	A	C	D	B	Public Safety
CH 60	CH. 61	CH. 62	CH. 63	CH. 64	CH. 65	CH. 66	CH. 67	CH. 68	CH. 69	

19. ***700 MHz Commercial Services Notice.*** In determining the size of geographic service areas for the C and D Blocks in the Upper 700 MHz Band, the Commission in 2000 decided to use large areas based on EAGs.[32] The Commission based this decision on a number of factors, including the likely uses of this spectrum as reflected in the record, a previous statutory obligation to conduct the auction and deposit the proceeds by a specific date," and the Commission's desire to hel bidders avoid costs associated with initial license area sizes that are either too small or too large! The Commission observed that large license areas such as EAGs could allow licensees to take advantage of economies of scale to develop new technologies and services, and could be aggregated to form nationwide licenses."

20. In a separate proceeding in 2001, the Commission divided the 48 megahertz of spectrum in the Lower 700 MHz Band into blocks of paired and unpaired spectrum to accommodate a range of new fixed, mobile, and broadcast services and technologies.[36] Figure 3 shows the current band plan for the Lower 700 MHz Band. The C Block was assigned across CMAs (*i.e.*, Metropolitan Statistical Areas (MSAs) and Rural Service Areas (RSAs)), while the remaining blocks were assigned across Economic Area Groupings (EAGs). While Congress specifically directed the Commission to delay the auction of

(Continued from previous page)
considerations, the most appropriate policy would be to base the band plan on large EAGs. ***See Upper 700 MHz First Report and Order,*** 15 FCC Rcd at 500 ¶¶ 56-57.

[32] ***See Upper 700 MHz First Report and Order,*** 15 FCC Rcd at 500 ¶ 56.

[33] See Consolidated Appropriations Act, 2000, Pub. L. No. 106-113, 113 stat. 2502, Appendix E, Sec. 213(a)(3), ***reprinted in*** 47 U.S.C.A. § 337 Note at Sec. 213(a)(3). With regard to previous statutory requirements to complete the auction by a certain date, in the ***Upper*** 700 ***MHz First Report and Order,*** the Commission stated that its experience "has shown that simultaneous multiple-round auctions for a larger number of licenses are more complex and take longer to complete than similar auctions involving fewer licenses." ***Upper*** 700 ***MHz First Report & Order,*** 15 FCC Rcd at 500 ¶ 57.

[34] ***See Upper 700 MHz First Report and Order,*** 15 FCC Rcd at 500 ¶ 57.

[35] ***Id.*** at 501 ¶ 59.

[36] ***See Lower 700 MHz Report and Order,*** 17 FCC Rcd at 1029, 1054-55 ¶¶ 13, 76.

licenses in the Lower 700 MHz Band, it made an exception for C Block and D Block licenses, which it directed the Commission to auction immediately."' The remaining A, E, and E Blocks have not been auctioned.

FIGURE 3 - LOWER 700 MHZ BAND

A	B	C	D	E	A	B	C
CH. 52	CH. 53	CH. 54	CH. 55	CH. 56	CH. 57	CH. 58	CH. 59

Block	Frequencies	Bandwidth	Pairing	Area Type	Licenses
A	698-704,728-734	12 MHz	2 x 6 MHz	700 MHz EAG	6
B	704-710,734-740	12 MHz	2 x 6 MHz	700 MHz EAG	6
C	710-716,740-746	12 MHz	2 x 6 MHz	CMA	734*
D	716-722	6 MHz	unpaired	700 MHz EAG	6*
E	722-728	6 MHz	unpaired	700 MHz EAG	6

'Blocks have been auctioned.

21. The Commission decided to make available a mix of both large and small geographic service areas in the Lower 700 MHz Band. The Commission noted that, in contrast to its experience in establishing service area sizes for the C and D Blocks in the Upper 700 MHz Band, many commenters in the Lower 700 MHz Band proceeding, including small and rural providers, favored small geographic areas, including CMAs.[38] In light of this interest in small areas, the Commission decided to assign the 12-megahertz C Block over CMAs.[39] The Commission observed that this was a "significant" amount of spectrum to assign across small geographic areas, noting that it amounted to 25 percent of the 48 megahertz in the Lower 700 MHz Band. The Commission concluded that such a policy would afford meaningful opportunities to small and rural wireless providers.[40] While the Commission declined to adopt nationwide licenses: it assigned the two remaining 12-megahertz paired blocks, as well as the two 6-megahertz unpaired blocks, over EAGs, for many of the same reasons cited in its proceeding for the Upper 700 MHz Band.[42]

"Auction Reform Act of 2002, Pub. L. No. 107-195, 116 Stat. 715 (codified as 47 U.S.C. 5 309(j)(15)).

[38] CMAs were found to correspond to the needs of many customers, including customers of small regional and rural providers. *Lower 700 MHz Report and Order,* 17 FCC Rcd at 1061¶¶ 95-96.

[39] *See id.* at 1059¶ 90

[40] *See Lower 700 MHz MO&O,* 17 FCC Rcd at 11619¶ 14 n. 32 (noting that one 12-megahertz block of spectrum "is significant" in that it equals 25 percent of the 48 megahertz of spectrum in the Lower 700 MHz Baud).

[41] *Lower 700 MHz Report and Order,* 17 FCC Rcd at 1059¶ 90, 1060-61¶ 94

[42] *Id.* at 1059-60¶¶ 91, 93. The Commission used the definition of EAGs as defined in the Upper 700 MHz Band proceeding, which included a particular definition concerning the division of the Gulf of Mexico between two EAGs. *See id.* at 1059¶ 90 & n.257.

22. In the 700 *MHz Commercial Services Notice* adopted in August **2006,** we sought comment on possible revisions to the band plan and service rules concerning commercial licenses in the **698-746,747-762,** and **777-792** MHz bands.[43] Among others things, we requested comment on ways the Commission could promote access to spectrum and the provision of service by assigning unauctioned spectrum over smaller geographic areas, whether we should modify the band plan with regard to the size and location of the spectrum blocks, whether we should revise the applicable performance standards pertaining to certain of these licenses, and whether to modify any of the technical rules in these bands. In addition, we also sought comment on several auctions-related issues and license renewal procedures. Also, we tentatively concluded that the Commission's 911/E911 rules and its hearing aid compatibility rules should be extended to apply to commercial services in the **700** MHz Band, as well as to CMRS services in other bands to the extent they meet certain criteria.

C. 700 MHz Guard Bands Proceeding

23. When the Commission originally established the Guard Bands in the Upper **700** MHz Band in 2000, its goal was to ensure that operations in the **36** megahertz of commercial spectrum would not cause harmful interference to **700** MHz public safety operations." While recognizing the Guard Bands' primary role as protecting public safety operations, the Commission permitted operations within the Guard Bands to "allow for effective and valued use of the spectrum, consistent with sound spectrum management, rather than the creation of guard band spectrum of little use."[45] To minimize the potential for harmful interference to public safety operations, the Commission precluded Guard Bands operations from employing cellular system architectures: and required entities operating in the Guard Bands to comply with stringent out-of-band emissions criteria[47] and frequency coordination procedures.[48] The Commission created the Guard Band Manager classification, a new class of commercial licensee engaged specifically in leasing spectrum to third parties on a for-profit basis,[49] and required that Guard Band Managers control the use of the spectrum consistent with the stict interference and frequency coordination rules designed to protect public safety."

24. ***700 MHz Guard Bands Notice.*** In the ***700 MHz Guard Bands Notice*** adopted in September **2006,** we sought comment on possible changes to the Part **27** service rules applicable to existing and prospective Upper **700** MHz Band licensees in the **A** Block and the B Block?' Two developments prompted the Commission to seek comment on possible rule changes that could promote more efficient and effective use of the Guard Bands. First, in **2004** as part of the 800 MHz public safety interference remediation proceeding in WT Docket No. **02-55,** the Commission reclaimed **all** of Nextel

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[43] ***See generally 700 MHz Commercial Services Notice,*** **12** FCC Rcd at **9346-48 ¶¶ 1-2.**

[44] ***See Upper 700 MHz First Report and Order,*** **15** FCC Rcd at **490-91 ¶ 33.**

[45] ***Id.*** at **491 ¶ 34.** The Commission also allocated each **of** the Upper **700** MHz spectrum blocks **so** that they would align with as few incumbent television broadcast channels as possible, in order to expedite deployment, reduce the number of potential negotiated agreements with broadcasters, and avoid a problem of "freeriding" third parties benefiting from others' negotiations. ***Id.*** at **492 ¶ 37.**

[46] 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 **5299,5308-09** ¶ 19 **(2000)** ***("Upper 700 MHz Second Report and Order").***

[47] *Id.* at **5307-08 ¶ 17**

[48] ***Id.*** at **5308** ¶ 18.

[49] *Id.* at 5312-13 ¶ 27.

[50] ***Id.*** at **5313 ¶ 30.**

[51] ***700 MHz Guard Bands Notice,*** **21** FCC Rcd at **10414 ¶ 2.**

Communications, Inc.'s (Nextel) Guard Bands licenses, constituting 42 of the 52 B Block markets.[52] Second, Congress recently created greater certainty regarding the availability of unencumbered 700 MHz Band spectrum for wireless commercial and public safety licensees—including the Guard Bands—by establishing a "hard date" of February 17, 2009, by which time incumbent analog broadcasters must vacate the spectrum. The *700 MHz Guard Bands Notice* sought comment on possible changes to the existing service rules for the Guard Bands that could result in more intensive use of the spectrum through greater operational, technical, and regulatory flexibility for licensees. Among other issues, we sought comment on whether to retain the existing Guard Band Manager rules or apply a different set of policies and rules to enable third parties to gain access to spectrum usage rights, such as those adopted in the Secondary Markets proceeding.[53] The 700 *MHz Guard Bands* Notice also asked whether we should apply the existing Guard Band Manager rules to the returned Nextel spectrum or whether another regulatory structure is appropriate.[54]

D. 700 MHz Public Safety Proceeding

25. In a December 2005 Report to Congress submitted pursuant to the Intelligence Reform Act,[55] the Commission recognized that broadband communications applications offer the public safety community a number of benefits, including video surveillance, real-time text messaging and e-mail, high resolution digital images and the ability to obtain location and status information of personnel and equipment in the field.[56] The Report to Congress found that emergency response providers would benefit from development of an integrated, interoperable network capable of delivering broadband services nationwide.[57]

26. As illustrated below, however, the current allocation for the public safety portion of the 700 MHz Band does not allow for broadband applications:

FIGURE 4 – 700 MHz PUBLIC SAFETY BAND

Public Safety Allocation			Commercial Allocation			Public Safety Allocation		
Narrow-band	Wideband	Narrow-band				Narrow-hand	Wideband	Narrow-band
CH. 63	CH. 64		CH. 65	CH. 66	CH. 67	CH. 68		CH. 69

[52] *See id.* at 10418-19 ¶ 12.

[53] Id. at 10421-24 ¶¶ 18-24.

[54] *Id.* at 10423 ¶ 22.

[55] See Intelligence Reform Act, Pub. L. No. 108458, 118 Stat. 3638 § 7502(d)(1) (2004)

[56] *See* Report to Congress on the Study to Assess the 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 at 13 ¶ 26 (Dec. 16, 2005) (Intel *Reform Act Report*).

[57] *Id.*

27. In March 2006, the Commission adopted the 700 *MHz Public Safety Eighth Notice*, seeking comment on the use of the 700 MHz Public Safety Band to accommodate the broadband needs of public safety.[58] In particular, the Commission sought comment on revisions to the above band plan proposed by the National Public Safety Telecommunications Council (NPSTC), Motorola, and Lucent.[59] All of the proposals contemplated aggregating the wideband general use channels, wideband interoperability channels, and wideband reserve spectrum to form a broadband segment. The Commission solicited alternative proposals, tentatively concluded not to alter the location of the narrowband voice and data channels, and sought comment on ways in which public safety entities could use the 700 MHz Public Safety Band for broadband applications and on measures that should be taken to promote broadband interoperability.[60]

28. The subsequent 700 *MHz Guard Bands Notice* sought comment on possible modifications to the rules governing the 700 MHz Guard Band licensees, including the BOP advanced by Access Spectrum and Pegasus Communications?' The 700 *MHz Guard Bands Notice* relates to the 700 MHz Public Safety proceeding, *inter alia*, because the Commission tentatively concluded that any Guard Bands proposal involving relocation of the narrowband channels in the 700 MHz Public Safety Band must address the source of funds to reprogram existing public safety 700 MHz radios and the coordination of the proposal with Canada and Mexico.

29. Most recently, in December 2006 we adopted a 700 *MHz Public Safety Ninth Notice* in which we proposed, in light of the nation's current and anticipated public safety and homeland security needs, "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 modem, IP-based system architecture."[62]

E. Frontline Proposal

30. In recent weeks, Frontline has submitted several filings with the Commission regarding its proposed "Public Safety Broadband Deployment Plan" for a portion of the spectrum in the 700 MHz Band.[63] Frontline proposes that the Commission alter the upper portion of the band plan and service rules

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[58] *See* 700 *MHz Public Safety Eighth Notice*, 21 FCC Rcd at 3669 ¶ 2.

[59] *Id.* at 3676-79 ¶¶ 14-22.

"*See id.* at 3675-76 ¶ 13,3683-84 ¶ 33.

[61] *See* 700 *MHz Guard Bands Notice*, 21 FCC Rcd at 10431-35 ¶¶ 42-48.

[62] 700 *MHz Public Safety Ninth Notice*, 21 FCC Rcd at 14838 ¶ 3.

[63] *See, i.e.*, Comments of Frontline Wireless, LLC, PS Docket No. 06-229 and WT Docket No. 96-86 (filed Feb. 26, 2007) ("Frontline Comments in PS Docket No. 06-229); Reply Comments of Frontline Wireless, LLC, PS Docket No. 06-229 and WT Docket No. 96-86 (filed Mar. 12,2007) ("Frontline Reply Comments in PS Docket No. 06-229"); Comments of Frontline Wireless, LLC, WT Docket No. 06-150 (filed Mar. 6,2007) ("Frontline Mar. 6 Comments in WT Docket No. 06-150"); Letter from John Blevins, counsel to Frontline Wireless, LLC, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 06-150 and 06-169 and PS Docket No. 06-229 (filed Mar. 27,2007) ("Frontline Mar. 26 *Ex Parte* in WT Docket Nos. 06-150 and 06-169 and PS Docket No. 06-229"). *See also* Letter from Matthew S. DelNero, counsel to Frontline Wireless, LLC, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229 (filed Mar. 7,2007) ("Frontline March 7 Ex *Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229"); Letter from Matthew S. DelNero, counsel to Frontline Wireless, LLC, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229 (filed Mar. 12,2007)("Frontline March 12 *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229"); Letter from Matthew S. DelNero, counsel to Frontline Wireless, LLC, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229 (filed Mar. 16,2007) ("Frontline March 16 *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229); Letter from Matthew S. DelNero, counsel to Frontline Wireless, LLC, to Marlene H. Dortch, Secretary, FCC, (continued....)

in the 700 MHz Commercial Services proceeding in order to auction a single nationwide IO-megahertz license (a new "E-block") near the 700 MHz Public Safety spectrum that would be subject to specific conditions.[64] In particular, the Commission would require the licensee to construct a nationwide, interoperable broadband network for sharing with a national public safety licensee that would provide broadband service in the lower portion of the 700 MHz Public Safety spectrum.[65] Frontline has made these filings in the three current Commission proceedings described above: the 700 MHz Commercial Services proceeding, the 700 MHz Public Safety proceeding, and the 700 MHz Guard Bands proceeding.

III. REPORT AND ORDER

31. Based on the record before us, we make a number of decisions in this Report and Order regarding the rules that will apply with regard to issues raised in the 700 MHz Commercial Services proceeding and the 700 MHz Guard Bands proceeding. First, we discuss the 700 MHz Commercial Services, including actions we are taking to facilitate access to spectrum and the provision of service to consumers, particularly with respect to the spectrum to be auctioned as directed by the DTV Act. Second, we address rules and policies for the 700 MHz Guard Bands in order to provide licensees enhanced flexibility while at the same time guarding against interference with the adjacent 700 MHz Public Safety spectrum.

A. 700 MHz Commercial Services

32. In this Report and Order, we take a number of steps to facilitate access to spectrum and the provision of service to consumers, especially those in rural areas, and to simplify and clarify our rules related to the commercial 700 MHz Band spectrum. We adopt a mix of geographic service areas to provide for CMAs, EAs, and REAGs for licenses in the commercial services. In addition, we decline to alter our rules relating to secondary market transactions. For issues relating to auctions of the commercial spectrum, we conclude that no new rules are needed to facilitate nationwide aggregation of existing and new 700 MHz Commercial Services licenses, reject requests for set aside of licenses for designated entities and to establish an additional small business category for bidding credits, and address issues concerning competitive bidding, aggregation of new licenses, and tribal lands bidding credits. Finally, with respect to the commercial services, we address issues concerning license renewal, extend the license terms to provide that initial authorizations for the 700 MHz Commercial Services Band will have a term not to exceed 10 years from February 17, 2009, address power limits and other technical issues, and establish requirements Concerning 911/E911 and hearing aid-compatible' handsets.

33. We do not accept arguments made by several commenting parties in this proceeding that making revisions to the rules for this 700 MHz spectrum may cause undue administrative and judicial delay,[66] or arguments that any changes to these rules run the risk of reducing the amount of monies collected in the auction to the extent that they could jeopardize funding for all elements of the plan

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Ex Parte in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229 (filed Mar. 19, 2007) ("Frontline Mar. 19 *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229"); Letter from Matthew S. DelNero, counsel to Frontline Wireless, LLC, to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229 (filed Mar. 22, 2007) ("Frontline Mar. 22 *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229").

[64] The "E-block" would consist of the paired 757-762 MHz and 787-792 MHz frequencies.

[65] *See generally* Frontline Comments in PS Docket No. 06-229; Frontline Mar. 6 Comments in WT Docket No. 06-150; Frontline Reply Comments in PS Docket No. 06-229; Frontline March 12 *Ex Parte* in WT Docket Nos. 96-86 and 06-150 and PS Docket No. 06-229; Frontline Mar. 26 *Ex Parte* in WT Docket Nos. 06-150 and 06-169 and PS Docket No. 06-229.

[66] *See* Cingular Reply Comments in WT Docket No. 06-150 at 7

relating to the DTV transition.[67] Similarly, we reject the argument that any revisions to the rules for this spectrum may cause a delay in the provision of services by these licensees.[68] Accordingly, we find that our actions in this Report and Order will not jeopardize our ability to meet our statutory obligations with respect to the DTV transition.

1. Background

34. In the 700 *MHz Commercial Services Notice,* we sought comment on a number of service rule issues concerning the 700 MHz Commercial Services Band.[69] With regard to the Commission's policies to promote access to spectrum and the provision of service, we sought comment on whether to assign additional unauctioned spectrum over geographic service area sizes other than the six EAGs specified under the current rules, and in particular, whether there is a need for additional small area licenses in this band, such as the 734 Cellular Market Areas (CMAs).[70] We also sought comment on whether we should modify the size of spectrum blocks in the Upper 700 MHz Commercial Services Band or the Lower 700 MHz Band, or both.[71] While stating that we thought the current band plan for the Lower 700 MHz Band should be retained, we nonetheless sought comment on possible changes to that band, and also specifically asked for comment on whether the Upper 700 MHz Commercial Services Band should be reconfigured by dividing its 20 megahertz D Block into two or more blocks.[72] We also sought comment on whether we should revise our current "substantial service" performance requirements for the 700 MHz Commercial Services Band, or whether the Commission should adopt alternative build-out rules, including population-based construction benchmarks, geography-based construction benchmarks, or a "keep-what-you-use" standard similar to that adopted for cellular service in the 1980s.[73] In addition, we sought comment on whether the Commission should attempt to promote access to spectrum and the provision of service through revisions to its secondary markets rules and procedures, such as by requiring licensees to make "good faith" efforts to negotiate with potential lessees and/or providing a point of contact for lessees.[74]

35. With respect to the Commission's policies on auctions-related issues, we sought comment on whether it would be necessary or desirable to facilitate the aggregation of new and existing 700 MHz Commercial Services Band licenses through the use of a "two-sided auction" that would offer for sale unassigned as well as previously assigned licenses for the spectrum in this band.[75] Similarly, we generally sought comment on whether any changes to the Commission's competitive bidding rules are necessary or desirable in order to facilitate efficient aggregation of new licenses, in light of the existing spectrum blocks for the 700 MHz Commercial Services Band licenses as well as any revisions the Commission may make to these spectrum blocks.[76] The 700 *MHz Commercial Services Notice* also

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[67] *See* Verizon Wireless Comments in WT Docket No. 06-150 at 2 (discussing funding for digital-to-analog converter box program and the interoperable communications systems for public safety).

[68] *See* Qualcomm Comments in WT Docket No. 06-150 at 15-16 (rule changes could cause delay in delivery of services).

[69] *See* 700 *MHz Commercial Services Notice,* 21 FCC Rcd at 9346-48 ¶¶ 1-2.

[70] *700 MHz Commercial Services Notice,* 21 FCC Rcd. at 9362-69 ¶¶ 28-48.

[71] *Id.* at 9369-73 ¶¶ 49-59.

[72] *Id.* at 9369 ¶ 49.

[73] *Id.* at 9373-76 ¶¶ 61-69. In the Further Notice, we seek comment on specific geography-based construction benchmarks to be applied to the unauctioned commercial 700 MHz Band licenses. *See infra* Section IV.B.1.c.

[14] *700 MHz Commercial Services Notice,* 21 FCC Rcd at 9376-78 ¶¶ 70-72.

[75] *Id.* at 9372-73 ¶¶ 58-59.

[76] *Id.* at 9372 ¶¶ 56-57.

generally sought comment on whether the Commission should take additional action to help facilitate access to 700 MHz spectrum and the provision of service to all consumers, including those in rural areas, as well as whether the Commission should make any adjustments to its Tribal Lands Bidding Credit rules as they apply to the 700 MHz Band licenses to be auctioned?'

36. In addition, the 700 *MHz Commercial Services Notice* also addressed a number of other policies and rules for 700 MHz Commercial Services Band licensees. For example, we sought comment on whether the Commission should amend its rules to state more explicitly the criteria for renewal of 700 MHz Commercial Services Band licenses, whether it should integrate the substantial service or any end-of-term requirements into the renewal process for 700 MHz Commercial Services Band licenses, and whether it should replace procedures for filing competing applications at renewal time with criteria to measure level of service provided by these licenses.'' The 700 *MHz Commercial Services Notice* sought comment on whether license terms of unauctioned as well as previously auctioned 700 MHz Commercial Services Band licenses should be extended beyond 2015, and whether the Commission should establish a *uniform* license term for all licensees in the band.[79] We also sought comment on whether licensees in the Upper 700 MHz Commercial Services Band should be permitted to operate at higher power levels, while noting that such changes could not result in additional interference to public safety services operating in the band.[80] Regarding the Lower 700 MHz Band, we sought comment on whether the Commission should continue to permit licensees in this portion of the band to operate at the 50 kW level, or whether this capability should be reduced for existing and/or future Lower 700 MHz Band licensees!' Finally, in the 700 *MHz Commercial Services Notice* we sought comment on our tentative conclusion that the Commission's 911/E911 and hearing aid compatibility rules should be extended to apply to 700 MHz services, as well as to CMRS services in other bands, to the extent these services meet certain criteria.[82]

2. Discussion

a. Facilitating Access to Spectrum and Provision of Service to Consumers

37. We take several steps to facilitate access *to* spectrum and the provision of service to consumers, especially those in rural areas, in the 700 MHz Commercial Services Band. We determine to provide for a mix of geographic service area sizes for the licenses that will be auctioned.[83] We also determine not *to* revise the Commission's existing spectrum leasing rules as they apply to 700 MHz Commercial Services Band licensees.

(i) Mix of Geographic Service Area *Sizes*

38. Background. In the *Upper* 700 *MHz First Report and Order,* the Commission determined that Blocks C and D of the Upper 700 MHz Band would be assigned over six EAGs.[84] In the

[77] *Id.* at 9378-80 ¶¶ 73-79.

[78] *Id.* at 9380-9383 ¶¶ 80-83.

[79] *Id.* at 9383-85 ¶¶ 84-89

[80] *Id.* at 9385-86 ¶¶ 91-94

[81] *Id.* at 9388 ¶¶ 95-98.

[82] *Id.* at 9388-90 ¶¶ 99-106

[83] In the Further Notice, we seek additional comment on band plan proposals for these licenses, including the location and sizes of these different geographic area licenses as well as the sue of the spectrum blocks to be auctioned.

[84] *Upper 700 MHz First Report and Order,* 15 FCC Rcd at 500 ¶ 56; *see also* 47 C.F.R. § 27.6(b)(2). The C Block is a 10-megahertz paired block consisting of *two* 5-megahertz segments; the D Block is a 20-megahertz paired block consisting of two IO-megahertz segments, *See supra* Figure 2. The six megahertz of spectrum that comprise the (continued....)

Lower 700 MHz Report and Order, the Commission determined that Blocks A, B, and E would also be assigned over EAGs.[85] As described above, licenses already have been assigned for two blocks in the Lower 700 MHz Band the C Block, a 12-megahertz paired block assigned over CMAs, and the D Block, a 6-megahertz unpaired block assigned over EAGs.[86]

39. In the 700 *MHz Commercial Services Notice,* we sought comment on whether there is a need to assign additional unauctioned spectrum over service area sizes other than the EAGs specified under current rules,[87] and, if so, what size of service areas, or combinations of sizes, should be adopted for the 700 MHz Band.[88] In particular, comment was requested on whether there is a need for additional small geographic service area licenses in the band, including 176 EAs, 734 CMAs, or any other small and/or rural areas.[89] We also sought comment on which particular spectrum block or blocks would be most appropriate for licensing in revised service area sizes.'"

40. Many commenters, including small and regional service providers, entities representing rural interests, and a coalition including cable television providers and Sprint-Nextel, support revisiting the existing band plan and suggest that the Commission adopt a mix of the proposed license areas?' Some of these same commenters favor making one or more license block available based on small geographic areas,[92] and support the use of smaller service areas in general and CMAs in particular.[93] A

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Guard Band in the Upper 700 MHz Band's Blocks A and B has already been licensed over 52 MEAs. *See* 47 C.F.R. § 27.6(b)(1); 700 MHz Guard Bands Auction Closes, *Public Notice,* 15 FCC Rcd 18026 (2000) (announcing winning bidders in Auction 33); 700 MHz Guard Bands Auction Closes, *Public Notice,* 16 FCC Rcd 4590 (2001) (announcing winning bidders in Auction 38).

[85] *Lower* 700 *MHz Report and Order,* 17 FCC Rcd at 1059 ¶ 90; *see also* 47 C.F.R. § 27.6(c)(1). Blocks A and B are each 12-megahertz paired blocks consisting of two 6-megahertz segments; the E Block is a 6-megahertz unpaired block. *See supra* Figure 3.

[86] *See supra* Figure 3; Lower 700 MHz Band Auction Closes, *Public Notice,* 17 FCC Rcd 17272 (2002) *("Auction 44 Public Notice")* (announcing winning bidders in Auction 44); Lower 700 MHz Band Auction Closes, *Public Notice,* 18 FCC Rcd 11873 (*"Auction 49 Public Notice")* (2003) (announcing winning bidders in Auction 49); Auction of Lower 700 MHz Band Licenses Closes, *Public Notice,* 20 FCC Rcd 13424 (2005) *("Auction* 60 *Public Notice")* (announcing winning bidders in Auction 60).

[87] 700 *MHz Commercial Services Notice,* 21 FCC Rcd at 9362 ¶ 27.

[88] *Id.* at 9363-67 ¶¶ 33-41.

[89] *Id.* at 9362 ¶ 27, 9363-67 ¶ 33-41.

[90] *Id.* at 9362 ¶ 27, 9367-69 ¶ 42-48.

[91] *See* Aloha Comments in WT Docket No. 06-150 at ii, 3-6; Aloha Reply Comments in WT Docket No. 06-150 at 1-3; Corr Comments in WT Docket No. 06-150 at 3; Leap Comments in WT Docket No. 06-150 *at* 4-6; MetroPCS Reply Comments in WT Docket No. 06-150 at 2-8; U.S. Cellular Comments in WT Docket No. 06-150 at 4; Letter from Alltel *et al.* to Marlene H. Dortch, Secretary, FCC, WT Docket No. 06-150 (filed Oct. 20, 2006) ("Balanced Consensus Plan") (signatories to the Balanced Consensus Plan are Alltel, Aloha, Blooston, C&W, ConnectME Authority, Corr, Dobson, Leap, Maine Office of Chief Information Officer, MetroPCS, NTCA, Nebraska PSC, North Dakota PSC, RCA, RTG, Union, U.S. Cellular, Vermont et al., Vermont Telephone Company). *See also* CTIA Comments in WT Docket No. 06-150 at 6 (mix of service areas for AWS-1 spectrum served the wireless marketplace well); Letter from Michelle C. Farquhar, counsel for SpectrumCo LLC, to Marlene H. Dortch, Secretary, FCC, in WT Docket No. 06-150 (filed Jan. 9, 2007) ("SpectrumCo Jan. 9 Ex *Parte* in WT Docket No. 06-150") at 2-11.

[92] *See* Aloha Comments in WT Docket No. 06-150 at ii, 3-6; Balanced Consensus Plan in WT Docket No. 06-150; Blooston Comments in WT Docket No. 06-150 at 2; C&W Comments in WT Docket No. 06-150 at 2-3; Corr Comments in WT Docket No. 06-150 at 2-4; Dobson Comments in WT Docket No. 06-150 at 2-4; Howard/Javed Comments in WT Docket No. 06-150 at 9; Leap Comments in WT Docket No. 06-150 at 4-6; MilkyWay Comments in WT Docket No. 06-150 at 1-6; NextWave Comments in WT Docket No. 06-150 at 2-6; NTCA Comments in WT Docket No. 06-150 at 6; OPASTCO Comments in WT Docket No. 06-150 at 2-3; RCA Comments in WT Docket (continued....)

coalition of cable television providers and Sprint-Nextel recommend a mix of geographic service areas that has most licenses based on EAs. Another coalition of 14 commenters, consisting of small, regional and rural carriers, as well as some state regulators, also submitted a proposal with a mix of service areas based on REAGs, EAs and CMAs.[94] Other commenters, including small and larger carriers as well as rural interests and a tribal representative, also support service areas smaller than EAGs.[95] For example, Frontier suggests that licenses be made available over areas as small as counties.'' In addition, some commenters offer support for smaller service areas and also advocate unlicensed use of the spectrum.[97] Access Spectrum et al. support the use of MEAs, which are the service areas for the Guard Bands licenses, in connection with its specific proposal to reconfigure the Upper 700 MHz Band.[98]

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No. 06-150 at 4-8; RTG Comments in WT Docket No. 06-150 at 2; U.S. Cellular Comments in WT Docket No. 06-150 at 4-7.

[93] See Aloha Comments in WT Docket No. 06-150 at 3; Aloha Reply Comments in WT Docket No. 06-150 at 2-3; Blooston Comments in WT Docket No. 06-150 at 1, 2; C&W Comments in WT Docket No. 06-150 at 2; Consumer Federation of America *e!* al. Comments in WT Docket No. 06-150 at 4-5; Corr Comments in WT Docket No. 06-150 at 2-4; Dobson Comments in WT Docket No. 06-150 at 2-4; Howard/Javed Comments in WT Docket No. 06-150 at i, 10-11, 21; Leap Comments in WT Docket No. 06-150 at 5; MetroPCS Comments in WT Docket No. 06-150 at 13; MetroPCS Reply Comments in WT Docket No. 06-150 at 2-3; MilkyWay Comments in WT Docket No. 06-150 at 3, 4-5; NTCA Comments in WT Docket No. 06-150 at 6 (supporting a 20-megahertz allocation over CMAs); NextWave Reply Comments in WT Docket No. 06-150 at 12-13; OPASTCO Comments in WT Docket No. 06-150 at 2-3; RCA Comments in WT Docket No. 06-150 at 4-8; RCA Reply Comments in WT Docket No. 06-150 at 3; RTG Comments at 3; RTG Reply Comments at 3; U.S. Cellular Comments in WT Docket No. 06-150 at 5-7; US. Cellular Reply Comments in WT Docket No. 06-150 at 5.

[94] Alltel et al. in WT Docket No. 06-150 (filing the "Balanced Consensus Plan"). The Balanced Consensus Plan recommends a mix of six different licenses, two each over CMAs (22 megahertz total), EAs (20 megahertz total), and REAGs (12 megahertz paired; 6 megahertz unpaired). This plan also includes a proposed reconfiguration of current D Block in the Upper 700 MHz Band by splitting that block into two 10-megahertz blocks.

[95] See MilkyWay Comments in WT Docket No. 06-150 at 4-5 (supporting a mix of different license sues, including CMAs); Polar Comments in WT Docket No. 06-150 at 1 (urging CMA licenses over 20 megahertz); Frontier Comments in WT Docket No. 06-150 at 1, 5-7 (supports reducing sue of all unauctioned spectrum to areas no larger than RSAs and MSAs; also supports county-sized licenses for certain portions of the spectrum); T-Mobile Reply Comments in WT Docket No. 06-150 at 3 (geographic areas smaller than EAGs are more likely to fall within business plans of parties with limited resources); OPASTCO Comments in WT Docket No. 06-150 at 2; NextWave Reply Comments in WT Docket No. 06-150 at 12-13; Howard/Javed Comments in WT Docket No. 06-150 at i, 9; Navajo Nation Comments in WT Docket No. 06-150 at 1 (supporting EA licensing).

[96] Frontier Comments in WT Docket No. 06–150 at 5-6. There are 3,141 U.S. counties. See Applications of Midwest Wireless Holdings, L.L.C. and AllTel Communications, Inc., WT Docket No. 05-339, Memorandum Opinion *and Order,* FCC 06-146, 2006 WL 2818315, n. 137 (Oct. 2, 2006).

[91] See NextWave Reply Comments in WT Docket No. 06-150 at 9-13. See also Howard/Javed Comments at i, 9, 31 (supporting the provision of easements allowing unlicensed use of 700 MHz spectrum).

[98] Access Spectrum *et al.* Comments in WT Docket No. 06-150 at 23-24. See *infra* Section IV.B.1.a (discussing Access Spectrum et *al.'s* proposal for the Upper 700 MHz Band).

41. On the other hand, a number of commenters support retaining EAGs exclusively.[99] Cingular and Verizon Wireless oppose adopting additional small-area licenses in the 700 MHz Band.[100] CTIA states that, in considering revisions and determining the appropriate license area size(s), the Commission should consider all of the 700 MHz Commercial Services spectrum (both auctioned and unauctioned), the licensing framework for the AWS-1 band in the AWS proceeding,[101] and the various secondary market opportunities available today.[102] *DIRECTV/EchoStar* comment that a nationwide license should be included in a mix of license sizes.[103]

42. Discussion. We find that providing for a mix of geographic licensing areas in the 700 MHz Band will balance the demand for differently sized licenses demonstrated in the record and enhance access to this spectrum by a variety of potential licensees. In particular, we determine to replace the unassigned EAG-sized license areas, as established in the current band plan, with a mix of geographic licensing areas consisting of CMAs, EAs, and REAGs. These revisions are consistent with the goal of providing greater access to spectrum for small providers and parties in rural areas, and improving the opportunity for a wider range of potential licensees to obtain access to this valuable spectrum. Having decided to adopt these three geographic license sizes for this commercial spectrum, in the Further Notice below we seek comment on a proposal regarding the band plan for commercial 700 MHz spectrum, both with regard to the size of the spectrum blocks to be auctioned and the location of the new CMAs, EAs, and REAGs with respect to those blocks.[104]

43. In determining the size of service areas, the Commission has stated as a general principle that it will consider "licensing the spectrum over a range of various sized geographic areas, including smaller service areas such as MSAs/RSAs [CMAs], where consistent with the record in that proceeding and with other factors that may be relevant to the spectrum."[105] Many commenters, including small and

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[99] See AT&T Comments in WT Docket No. 06-150 at 3; AT&T Reply Comments in WT Docket No. 06-150 at 2; Cingular Comments in WT Docket No. 06-150 at 5; Cingular Reply Comments in WT Docket No. 06-150 at 3; Motorola Comments in WT Docket No. 06-150 at i; Motorola Reply Comments in WT Docket No. 06-150 at 2; Verizon Wireless Comments in WT Docket No. 06-150 at 3. *See also* CTIA Comments in WT Docket No. 06-150 at 1-2 (stating that, in large part, the existing licensing and service rules should be left unchanged); Qualcomm Comments in WT Docket No. 06-150 at 17 (stating that any change would be for unauctioned spectrum only). Cingular and AT&T argue that if any change is to be made to the size of service areas, then such changes should be limited. Cingular Reply Comments in WT Docket No. 06-150 at 9 (arguing that any changes to band plan should be limited to the Upper 700 MHz Band); AT&T Reply Comments in WT Docket No. 06-150 at 15 (noting that if any change is made, it should be to one block only, and that the Lower 700 MHz Band should not be changed).

[100] See Cingular Comments in WT Docket No. 06-150 at 7-9; Cingular Reply Comments in WT Docket No. 06-150 at 7-9; Verizon Wireless Comments in WT Docket No. 06-150 at 4-5; Verizon Wireless Reply Comments in WT Docket No. 06-150 at 3-6 (discussing downside of small area licensing and lack of evidence to support smaller geographic areas).

[101] See Service Rules for Advanced Wireless Services in the 1.7 and 2.1 GHz Bands, WT Docket No. 02-353, ***Order on Reconsideration,*** 20 FCC Rcd 14058 (2005) ***(AWS-I Order on Reconsideration)*** (adopting a mix of license sizes). "AWS-1" refers to the 90 megahertz of the spectrum in the 1710-1755MHz and 2110-2155 MHz bands. Licenses involving this spectrum recently were auctioned in Auction No. 66.

[102] CTIA Comments in WT Docket No. 06-150 at 6; see also Verizon Wireless Reply Comments in WT Docket No. 06-150 at 4-5.

[103] DIRECTV/EchoStar Comments in WT Docket No. 06-150 at 3

[104] See ***infra*** Section IV.B. In this Further Notice, we also consider a recently filed proposal by Frontline. See ***infra*** Section IV.B.5. Were the Commission to determine to create a nationwide licensee for one block of commercial spectrum, consistent with the Frontline proposal, this would not affect our decision in this Report and Order to create a mix of **CMA, EA,** and **REAG** licenses for the other blocks of commercial 700 MHz Band spectrum.

[105] Facilitating the Provision of Spectrum-Based Services to Rural Areas and Promoting Opportunities for Rural Telephone Companies to Provide Spectrum-Based Services, WT Docket No. 02-381, 2000 Biennial Regulatory (continued....)

regional service providers and entities that represent rural interests, favor an approach that would provide for a variety of license sizes beyond those in the current band plan.[106] We agree with those commenters who observe that a revised mix of smaller license sizes would provide a more balanced set of initial licensing opportunities at this time and make available more licenses to match the needs of different potential users.[107] The opportunities afforded by providing licenses with a mix of geographic areas were seen in the results of Auction No. 66 involving AWS-1 licenses, where many different bidders won smaller and mid-sized licenses, such as CMAs and EAs.[108] The same policy of providing a mix of licenses that balances competing interests is appropriate here. These revisions will advance the Commission's statutorily directed goals to promote service to rural areas,[109] promote investment in and the rapid deployment of new technologies and services,[110] avoid the excessive concentration of licenses, and provide for the dissemination of licenses among a wide variety of applicants.[111]

44. We conclude that providing a mix of **CMA, EA,** and REAG licenses in the 700 MHz Commercial Services spectrum will be an effective means of providing increased access to spectrum, especially in rural areas, while simultaneously meeting other Commission goals. We disagree with commenters who argue that any changes to smaller area licenses should be limited to the Upper 700 MHz Commercial Services Band, and not be implemented in the Lower 700 MHz Band.[112] In this regard, Cingular and AT&T argue that the Lower 700 MHz Band, because of its higher maximum power limits, is well suited for new mobile applications that requires large license areas and therefore that any change in the size of service areas (*e.g.,* the use of smaller areas) should be limited to the Upper 700 MHz

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Review Spectrum Aggregation Limits for Commercial Mobile Radio Services, WT Docket No. 01-14, Increasing Flexibility to Promote Access to and the Efficient and Intensive Use of Spectrum and the Widespread Deployment of Wireless Services, and to Facilitate Capital Formation, WT Docket No. 03-202, ***Report and Order and Further Notice of Proposed Rulemaking,*** 19 FCC Rcd 19078, 19096 ¶ 31 (2004) (***Rural Report and Order*** and ***Further Notice,*** respectively). ***See Lower 700 MHz Report and Order,*** 17 FCC Rcd at 1050 ¶ 65, 1061-62 ¶ 96 (Commission sought to define an initial "scope of licenses" that can be "obtained and used by a wide range of entities and services."); Service Rules for Advanced Wireless Services in the 1.7 and 2.1 GHz Bands, WT Docket No. 02-353, ***Order on Reconsideration,*** 20 FCC Rcd 14058, 14066 ¶ 14 (2005) (***AWS-1 Order on Reconsideration***) ("RSAs and MSAs allow entities to mix and match rural and urban areas according to their business plans and that, by being smaller, these types of geographic service areas provide entry opportunities for smaller carriers, new entrants, and rural telephone companies"); Service Rules for Advanced Wireless Services in the 1.7 and 2.1 GHz Bands, WT Docket No. 02-353, ***Report and Order,*** 18 FCC Rcd 25162, 25175-77 ¶¶ 35-39 (2003) (***AWS-1 Report and Order***) (Commission determined that using a varied selection of areas will foster service to rural areas and promote the policy goal of disseminating licenses among a wide variety of applicants).

[106] ***See, e.g.***, Balanced Consensus Plan; Aloha Comments in WT Docket No. 06-150 at 3; Corr Comments in WT Docket No. 06-150 at 3; U.S. Cellular Comments in WT Docket No. 06-150 at 2; T-Mobile Reply Comments in WT Docket No. 06-150 at 2-4; MilkyWay Comments in WT Docket No. 06-150 at 2-6; Leap Comments in WT Docket No. 06-150 at 5-6; RCA Comments in WT Docket No. 06-150 at 7; RTG Comments in WT Docket No. 06-150 at 2-8; MetroPCS Reply Comments in WT Docket No. 06-150 at 3.

[107] ***See*** Balanced Consensus Plan; U.S. Cellular Comments in WT Docket No. 06-150 at 3; Corr Comments in WT Docket No. 06-150 at 3; NTCA Comments in WT Docket No. 06-150 at 5-6.

[108] Of 104 winning bidders, 70 (67%) won CMA licenses only, and 21 (20%) won only EA and/or CMA licenses ***See*** http://wireless.fcc.gov/auctions/66/charts/66cls2.pdf (providing auction results); ***see, generally,*** http://wireless.fcc.gov/auctions/66/ (providing additional information on the AWS auction).

[109] ***See*** 47 U.S.C. § 309(j)(3)(A).

[110] ***See*** 47 U.S.C. § 309(j)(3)(A), (4)(C)(iii).

[111] ***See*** 47 U.S.C. § 309(j)(3)(B), (4)(C).

[112] ***See infra*** Section IV.B.1.a (proposing smaller license areas in the Lower 700 MHz Band).

Commercial Services Band."' However, the Commission previously found that the maximum power limit in the Lower 700 MHz Band, with the associated non-interference requirement, would maximize both flexibility and freedom from harmful interference "for the widest number of potential services" in the Lower 700 MHz Band.[114] Smaller and rural operators also should have access to the benefits afforded by the higher power limits in the Lower 700 MHz Band. We note that the maximum power limit has enabled a licensee in the C Block of the Lower 700 MHz Band, C&W, to reach its entire service area from a single tower site. In this regard, C&W states that if the power limits for its Lower 700 MHz license were lowered, it would be forced to add towers at a great expense to continue to reach the outlying portions of its service area."' Another C Block licensee, Corr, states that potential services under active development include mobile TV and one-way data transfers, and with 50 kW of power, a licensee could provide such a broadcast service to a small or medium-sized metropolitan area.[116]

45. Consistent with our earlier findings with respect to license sizes in the Upper and Lower 700 MHz Bands,"' we decline at this time to adopt nationwide licensing for any of the 700 MHz Commercial Services Band spectrum blocks, as requested by DIRECTV/EchoStar.[118] Given the ability of licensees to combine REAGs in the upcoming auction to create regional or nationwide service territories through standard bids, adopting nationwide licensing for a spectrum block is unnecessary."' Licensees will be able to seek to acquire and combine licenses based on REAGs, as well as licenses based on other area sizes, in order to achieve larger footprints, including nationwide coverage, if that is their goal. We note that bidders in Auction No. 66 were able to acquire multiple licenses so as to build larger footprints with geographic areas smaller than EAGs, including EA licenses.[120] Although we do not adopt

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[113] *See* Cingular Reply Comments in WT Docket No. 06-150 at 9-10; AT&T Reply Comments in WT Docket No. 06-150 at 15-17.

[114] *Lower 700 MHz MO&O*, 17 FCC Rcd at 11621 ¶ 19; *see also Lower 700 MHz Report and Order*, 17 FCC Rcd at 1064 ¶ 103 (noting that providers of non-broadcast services may also operate at power levels up to 50 kW ERP, provided they comply with the same technical requirements associated with such operations, creating a consistent set of technical rules for all services in the Lower 700 MHz Band). *See also infra* Section III.A.2.c(iii) (retaining 50 kW power levels for incumbent Lower 700 MHz Band licensees).

[115] C&W Comments in WT Docket No. 06-150 at 5. C&W further states that such an action would force it to discontinue service on this spectrum due to the expense of continuing operations under these conditions. *Id.*

[116] Corr, an original licensee of C Block licensees which has assigned those licenses to its parent, states that it believed at the time it bid on the licenses, and still believes, that there may be a viable use for these licenses in providing digital broadcast services. Corr Comments in WT Docket No. 06-150 at 8-9. Corr states that potential services under active development include mobile TV and one-way data transfers, and with 50 kW of power, a licensee could provide such a broadcast service to a small or medium-sized metropolitan area. *Id.*

[117] *See Lower 700 MHz Report and Order*, 17 FCC Rcd at 1060-61 ¶ 94 (finding the use of EAGs to be preferable to the assignment of nationwide service areas despite efficiencies associated with nationwide service); *Upper 700 MHz First Report and Order*, 15 FCC Rcd at 502 ¶ 61 (adopting EAGs with ability of licensees to partition and aggregate to provide maximum flexibility to parties to adjust their operating area most efficiently given marketplace and technological needs).

[118] DIRECTV/EchoStar Comments in WT Docket No. 06-IS0 at 3.

[119] *See AWS-1 Report and Order*, 18 FCC Rcd at 25176 ¶ 38.

[120] *See* http://wireless.fcc.gov/auctions/66/charts/66market.xls or http://wireless.fcc.gov/auctions/66/charts/66press_5.pdf (providing auction results, including Spectrum Co.'s acquisition of 136 EA licenses). *See also* MetroPCS Reply Comments in WT Docket No. 06-150 at 7; RTG Comments in WT Docket No. 06-150 at 5; Aloha Comments in WT Docket No. 06-IS0 at 6 (addressing SpectumCo.'s acquisition of licenses in Auction No. 66).

nationwide licensing in this Report and Order, in the Further Notice we seek comment on proposals that would provide for combinatorial bidding for certain blocks to promote new entry in this band.[121]

46. Likewise, we decline to adopt service areas smaller than **CMAs,** such as county-sized areas.[122] The Commission has not licensed spectrum across areas smaller than CMAs,[123] and we find that the 734 CMA licenses are small enough to help ensure widespread deployment of advanced services, including in rural areas, and allow participation for ***small*** and ***rural*** bidders. ***Also,*** given the excellent propagation characteristics in the 700 MHz Commercial Services Band, and the relatively small size of many counties, licensing 700 MHz Band spectrum on a county basis may result in spectral inefficiency.

47. We also decline to adopt as a part of the band plan for the 700 MHz Commercial Services Band geographic areas of other sizes, including MEAs.[124] Our decision in this Report and Order to adopt three different license sizes offers a sufficiently wide variety of service areas that may be acquired by both small and rural providers as well as large regional and nationwide providers, while minimizing complexity for bidders at auction and in our licensing process.

48. Further, we reject Milgrom/Wrege's recommendation that the boundaries of CMAs be adjusted ***so*** that each **CMA** is contained entirely within a single EA (or that the EAs be adjusted so that each EA comprises a set of CMAs), in the event the Commission decides to offer additional CMA license areas in the 700 MHz Commercial Services Band.[125] Adjusting the CMA licenses in such a manner would create license areas that do not match precisely the license areas for the Lower 700 MHz Band C Block spectrum, which have already been auctioned on a CMA basis.[126] We also note that such revisions could have an impact on operators that intend to match the 700 MHz Band spectrum with other spectrum which has been licensed over CMAs.

49. Because the band plan for the 700 MHz Commercial Services Band no longer contains EAGs, for the EAs, REAGs, and CMAs we will separately license the Gulf of Mexico with each of the following license divisions: EA licensing area 176; REAG licensing area 12; and MSA licensing area 306. We adopt: (i) the same definition of EAs set forth in Section 27.6(h) of the **rules,** currently applicable for AWS-1 spectrum, for EA licenses in the 700 MHz Commercial Services Band; (ii) the same definition of REAGs set forth in Section 27.6(h) of the rules, currently applicable for AWS-1 spectrum, for REAG licenses; and (iii) the same definition of MSA/RSAs set forth in Section 27.6(c), currently applicable to the C Block of the Lower 700 MHz Band, for CMAs. As we have done in licensing other Part 27 services, the Gulf of Mexico service area is comprised of the water area of the Gulf of Mexico starting 12 nautical miles from the **U.S.** Gulf coast and extending outward.

(ii) Secondary Markets

50. Background. The Commission has sought to provide access to spectrum by promoting the development of robust secondary markets in spectrum usage rights, removing unnecessary regulatory barriers and allowing entities seeking access to spectrum to enter into spectrum leasing arrangements with existing licensees. Specifically, in the 2003 ***Secondary Markets Report and Order,*** the Commission adopted **rules** to facilitate access to spectrum by permitting licensees and entities seeking spectrum access

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[121] ***See infra*** Section IV.B.l.

[122] ***See*** Frontier Comments in WT Docket No. 06-150 at 5-6.

[123] ***See Rural Report and Order,*** 19 FCC Rcd at 19090 n.60.

[124] ***See*** Access Spectrum ***et al.*** Comments in WT Docket No. 06-150 at 23; MetroPCS Comments in WT Docket No. 06-150 at 11, 14 (proposing MEAs in connection with suggested division of D Block of Upper 700 MHz Band).

[125] Milgrom/Wrege Comments in WT Docket No. 06-150 at 2-3.

[126] In the Further Notice, we propose to license the Lower 700 MHz Band B Block on a CMA basis.

to enter into different types of spectrum leasing arrangements.[127] In the *Secondary Markets Second Report and Order*, adopted in 2004, the Commission extended its application of these rules to additional services and provided for immediate (*i.e.*, overnight) processing of certain classes of spectrum lease arrangements and applications for license transfers and assignments.[128]

51. In the *700 MHz Commercial Services Notice*, we sought comment on whether the Commission could further promote access to 700 MHz Commercial Services Band spectrum through revisions to its secondary markets policies and rules pertaining to partitioning, disaggregation, and spectrum leasing.[129] For instance, we sought comment on whether the Commission should revise its secondary markets rules to require licensees to make "good faith" efforts to negotiate with potential spectrum lessees. The *700 MHz Commercial Services Notice* observed that such a policy could take one of several forms, ranging from a requirement that licensees establish a point of contact for potential spectrum lessees, to a requirement for "good faith" negotiation that might stipulate that licensees have a minimum number of meetings with potential spectrum lessees and/or must provide their terms for an acceptable spectrum leasing arrangement.[130]

52. The majority of commenters addressing whether the Commission should adopt additional rules to promote secondary markets transactions oppose revisions to the current secondary markets rules. These parties include all of the CMRS providers that commented on this issue, as well as a technology provider, Qualcomm.[131] One small CMRS provider commenting on this issue, Corr, argues that the proposed new rules would be unnecessary and, to the extent leasing is not occurring regularly, the problem largely would be solved by the use of smaller geographic areas.[132] Only two commenters, including a group of state agencies, take a different view and recommend that the Commission consider a licensee's participation in secondary market transactions during the license renewal process.'"

53. Discussion. We decline to adopt rules that would require 700 MHz Commercial Services Band licensees to make "good faith" efforts to negotiate with potential spectrum lessees, either as part of their performance requirements or as part of the criteria associated with license renewal. We believe that such changes are unnecessary given the other measures we are adopting to promote access to spectrum in the 700 MHz Commercial Services Band. As discussed above, these measures involve revising the 700 MHz Commercial Services band plan to include a mix of smaller geographic licensing areas.

54. Most commenters support a decision not to impose a "good faith" negotiation obligation

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[127] Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets, *Report and Order and Further Notice of Proposed Rulemaking*, 18 FCC Rcd 20604,20649-77 ¶¶ 93-181 (2003) *(Secondary Markets Report and Order)*. The spectrum leasing policies adopted in the *Secondary Markets Report and Order* applied generally to services licensed under Parts 22, 24, 27, 90, and 101 of the Commission's rules, including all Commercial Mobile Radio Services (CMRS) and various other services in which the licensee holds an "exclusive use" right. *Id.* at 20643 ¶ 84, fn. 181.

[128] 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*, 19 FCC Rcd 17503, 17509-545 W I 0-84 (2004) *("Secondary Markets Second Report and Order'?*

[129] *700 MHz Commercial Services Notice*, 21 FCC Rcd at 9316-71 ¶ 70.

[130] *Id.* at 9317 ¶ 71.

[131] *See, e.g.*, AT&T Comments in WT Docket No. 06-150 at 10-11; Aloha Partners Comments in WT Docket No. 06-150 at 12-13; CTIA Comments in WT Docket No. 06-150 at 16-17; Corr Wireless Comments in WT Docket No. 06-150 at 5-6; Qualcomm Comments in WT Docket No. 06-150 at 19-20; Verizon Wireless Comments in WT Docket No. 06-150 at 6.

[132] Corr Wireless Comments in WT Docket No. 06-150 at 7.

[133] *See* Howard/Javed Comments in WT Docket No. 06-150 at 28-30; Vermont Public Service Commission *et al.* Comments in WT Docket No. 06-150 at 12.

on the 700 MHz Commercial Services Band licensees. Some of these commenters argue that such a requirement would be unnecessarily burdensome and could lead to uneconomic decisions.[134] Aloha is concerned that requiring licensees to make "good faith" efforts to negotiate with potential lessees would be "a very complex can of worms" with little or no corresponding benefit."' AT&T observes that a "good faith" requirement could encourage efforts to obtain access to this spectrum at below-market prices.[136] CTIA argues that the proposed modifications would increase transaction costs and would be contrary to the Commission's objectives in promoting secondary markets.'"

55. Commenters supporting the adoption of a "good faith requirement argue that the Commission should consider a licensee's secondary markets participation as part of its license renewal process.[138] We note, however, that the Commission's current spectrum leasing rules already provide a licensee with significant incentives to enter into spectrum leasing arrangements because licensees may rely on the activities of its spectrum lessee(s) for purposes of complying with the licensee's construction requirements.[139] We conclude that our decision to adopt a mix of geographic license area sizes, combined with our existing secondary markets rules, are sufficient to promote access to spectrum. Accordingly, we decline to adopt further secondary markets requirements at this time.

b. Auctions-Related Issues

(i) Aggregating Licenses

56. Backmound. In the 700 *MHz* Commercial Services Notice, we sought comment on whether Commission action is necessary or desirable to facilitate the aggregation of existing 700 MHz Band licenses with new licenses the Commission may grant. In the 700 *MHz* Commercial Services ***Notice,*** we observed that such aggregation could be facilitated by a single auction in which licenses for spectrum previously assigned as well licenses for unassigned spectrum in the 700 MHz Band could be offered for sale, a mechanism sometimes referred to as a "two-sided" auction.[140] For example, spectrum assigned pursuant to existing licenses could be included in an auction by issuing vouchers to the existing licensees in exchange for their licenses. The amount of the vouchers could be determined by winning bids for licenses covering the returned spectrum. The vouchers could be used to offset winning bids in the auction, and possibly other Commission auctions as well.

57. As part of a wider-reaching proposal to revise the Upper 700 MHz band plan, Access Spectrum *et al.* support returning their 700 MHz Guard Band licenses in exchange for a bidding credit.[141] DIRECTV/EchoStar see a benefit in making previously licensed spectrum available in an auction of new

[134] ***See,*** *e.g.*, AT&T Comments in WT Docket No. 06-150 at 10-11; Corr Wireless Comments in WT Docket No. 06-150 at 6; Qualcomm Comments in WT Docket No. 06-150 at 19-20.

[135] *See* Aloha Partners Comments in WT Docket No. 06-150 at 12.

[136] *See* AT&T Comments in WT Docket No. 06-150 at 10-11.

[137] ***See*** CTIA Comments in WT Docket No. 06-150 at **17.**

[138] ***See,*** *e.g.*, Howard/Javed Comments in WT Docket No. 06-150 at 28; Vermont Department of Public Service ***et al.*** Comments in WT Docket No. 06-150 at 12.

[139] ***See Secondary Markets Report and Order,*** 18 FCC Rcd at 20655 ¶¶ 114-115 (for spectrum manager leases), 20667 ¶146 (for ***de facto*** transfer leases). See ***also*** 47 C.F.R. 1.9020(d)(5), 1.9030(d)(5).

[140] 700 ***MHz Commercial Services Notice,*** 21 **FCC** Rcd at 9372-73 ¶¶ 57-59.

[141] Access Spectrum ***et al.*** Comments **in** WT Docket No. 06-150 at 29-31.

licenses.[142] Others, including Blooston and Corr, voice support for a "two-sided" auction provided that the return of existing licenses is voluntary.[143]

58. Discussion. Based on the record and the circumstances present here, we conclude that the public interest would be better served by relying on the existing secondary market to aggregate existing and new licenses rather than attempting to develop new rules and policies for incorporating existing 700 MHz Commercial Services licenses into an auction of new licenses. Parties bidding on new licenses should he able to accurately value those licenses, even absent an opportunity to simultaneously aggregate new with existing licenses. New licenses in the 700 MHz Commercial Services spectrum can be used independently of existing licenses. Applicants will be able to seek any of multiple new licenses, of varying geographic size, to serve any given location. Thus, the value of the new licenses is unlikely to depend significantly upon a party's ability to aggregate existing and new licenses. Moreover, the interests of aggregators are likely to be met in large part by the existing secondary market. Accordingly, we conclude that no new rules or policies are needed to facilitate aggregation of existing and new 700 MHz Commercial Services licenses in order to increase the likelihood that these licenses will be assigned to the parties most likely to put them to their most effective use.

(ii) Bidding Preferences

59. Background. Certain commenters advocate that the Commission set aside 700 MHz Commercial Services licenses for designated entities or, if not, that the Commission adopt a third small business definition under which eligible applicants would receive a 35% bidding credit. In particular, certain commenters representing rural providers, small entities, and others argue that the Commission should set aside spectrum blocks for designated entities, as it did in 1994 for auctions of PCS Broadband spectrum licenses.'" In reply comments, other parties argue that set-asides are not necessary and were rejected in the AWS proceeding.[145]

60. In the event the Commission does not adopt the set-aside it proposes, Council Tree argues that the Commission must adopt an additional 35% bidding credit for the applicants with average attributable net revenues not exceeding $3 million.[146] Council Tree notes that the Commission offered such a credit with respect to licenses for the Lower 700 MHz C Block. No other party addresses this proposal.

61. In addition, as part of a larger band plan proposal, Access Spectrum *et al.* propose bidding credits for commercial licensees that commit to providing access to spectrum for 700 MHz public safety services.[147] Cingular and MetroPCS oppose this proposal in reply comments.[148]

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[142] DIRECTV/EchoStar Comments in WT Docket No. 06-150 at 10.

[143] Blooston Comments in WT Docket No. 06-150 at 5, Corr Comments in WT Docket No. 06-150 at 10-12. *See* also Qualcomm Comments in WT Docket No. 06-150 at 19 ("does not oppose this proposal since it, . . would be entirely voluntary").

[144] *See, e.g.,* NTCA Comments in WT Docket No. 06-150 at 8-11; OPASTCO Comments in WT Docket No. 06-150 at 3-4; RTG Comments in WT Docket No. 06-150 at 8; Council Tree Communications, Inc. (Council Tree) Comments in WT Docket No. 06-150 at 11-13.

[145] *See, e.g.,* AT&T Reply Comments in WT Docket No. 06-150 at 14-15; Cingular Reply Comments in WT Docket No. 06-150 at 10-11; USCC Reply Comments in WT Docket No. 06-150 at 16-17.

[146] Council Tree Comments in WT Docket No. 06-150 at 13-15. For these bands, the Commission previously adopted bidding credits of 25% and 15% for applicants with average attributable gross revenues not exceeding $15 million and $40 million, respectively. *See* 47 C.F.R. §§ 1.2110(f)(2), 27.502, 27.702.

[147] *See* Access Spectrum *et* al. Comments in WT Docket No. 06-150. In contrast to Access Spectrum *et al.*'s proposal for bidding credits in exchange for Public Safety service commitments, existing rules and practice generally provide bidding preferences for certain types of applicants rather than for applicants committing to provide (continued....)

62. Discussion. We reject the suggestions of certain commenters that the Commission set aside licenses in the 700 MHz Commercial Services Band auction solely for designated entities and Council Tree's argument that we adopt a third small business definition to provide for a 35% bidding credit. Consistent with our tentative conclusion not to adopt Access Spectrum *et al.*'s band plan proposal and in light of various difficulties in implementing such a bidding credit, we also do not adopt a bidding credit based on providing access to spectrum for 700 MHz public safety services.

63. Although the Communications Act requires that the Commission ensure that "designated entities"[149] are given the opportunity to participate in the provision of spectrum-based services and, for such purposes, consider the use of bidding preferences,[150] these preferences can take many forms. In an early attempt to meet these mandates, the Commission set aside blocks of spectrum in the Broadband PCS band to be held by designated entities. The Commission's experience in Broadband PCS auctions and subsequent auctions has demonstrated, however, that bidding credits **for** designated entities afford such entities substantial opportunity to compete with larger businesses for spectrum licenses and provide spectrum-based services. For example, Auction No. 66 demonstrated very recently that designated entities can succeed in auctions for licenses for valuable spectrum without any set-asides. In Auction No. 66, more than half the winning bidders were designated entities that received discounts on their gross winning bids and designated entities won over twenty percent of the licenses sold.[151] Moreover, setting aside licenses risks denying the licenses to other applicants that may be more likely to use them effectively or efficiently for the benefit of consumers. Potentially excluding such applicants could compromise the Commission's pursuit **of** various statutory objectives including promoting the development and deployment of new technologies, products, and services for the benefit of the public and promoting efficient and intensive use of the spectrum.[152]

64. We reject the arguments **of** certain commenters that setting aside 700 MHz Commercial Services licenses is essential to ensuring service in particular areas, especially rural areas. We are adopting other, very significant measures that directly serve this goal. For example, our decision to use smaller geographic areas reduces the cost of some licenses, creating opportunities for more potential licensees, including those focusing on serving rural areas in particular CMAs. The more stringent performance requirements we adopt here will also promote service to rural and underserved areas. There can be no assurance that the designated entities **will** provide any particular service, such as service in rural

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certain services. The Commission **has** noted in prior proceedings "that there is no support in either the Communications Act or prior Commission decisions for creating a bidding credit for providing Public Safety services." Amendments to Parts 1, 2, 27 and 90 **of** the Commission's **Rules** to License Services in the 216-220 MHz, 1390-1395 MHz, 1427-1429 MHz, 1429-1432 MHz, 1432-1435 MHz, 1670-1675 MHz, and 2385-2390 MHz Government Transfer Bands, WT Docket No. *02-8, Report and Order*, 17 FCC Rcd 9980, 10023 ¶109 (2002) *(Government Transfer Bands R&O)*. Nonetheless, the Commission **has** created bidding credits to encourage service to underserved tribal lands, without regard to whether the provider is **a** designated entity. **See** *generally* **47** C.F.R. §1.2110(f)(3). ***See also Government Transfer Bands R&O***, 17 FCC Rcd at 10024 ¶109 n.365 (noting that the tribal lands bidding credit is outside of the designated entity context).

[148] Cingular Reply Comments in WT Docket No. 06-150 at 16; MetroPCS Reply Comments in WT Docket No. 06-150 at 18-19.

[149] One of the statutory objectives the Commission must seek to promote when using its competitive bidding authority is the dissemination of licenses among a wide variety of applicants, including **small** businesses, rural telephone companies, and businesses owned by members of minority groups and women, sometimes collectively referred to as "designated entities." **47** U.S.C. §309(j)(3)(B).

[150] **47** U.S.C. §309(j)(4)(D).

[151] **See** http://wireless.fcc.gov/auctions/66/charts/66cls2.pdf (providing auction results); ***see, generally,*** http://wireless.fcc.gov/auctions/66/ (providing additional information on the AWS auction).

[152] **See** 47 U.S.C. § 309(j)(3).