

Lower 700 MHz Band C Block
Auction (#60) Seminar

Overview of Service Rules:
**Legal and Technical
Issues**

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A stylized, teal-colored silhouette of a mountain range is positioned in the bottom right corner of the slide, extending from the right edge towards the center.

DISCLAIMER

- ◆ Nothing herein is intended to supersede any provision of the Commission's rules or public notices. These slides should not be used as a substitute for a prospective applicant's review of the Commission's relevant orders, rules, and public notices. Prospective applicants must familiarize themselves thoroughly and remain current with the Commission's rules relating to the Lower 700 MHz Band spectrum, rules relating to application and auction procedures, and the procedures, terms and conditions contained in the Auction No. 60 public notices.

Introduction

- ◆ Background of Proceeding
 - ◆ Service rules
 - ◆ Technical issues
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Background of Proceeding

- ◆ GN Docket No. 01-74: Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59)
 - *Lower 700 MHz Report and Order*, FCC 01-364, rel. Jan. 18, 2002; cite: 17 FCC Rcd 1022 -- adopted allocation and service rules, including licensing and technical rules
 - *Lower 700 MHz Memorandum Opinion and Order*, FCC 02-185, rel. Jun. 14, 2002; cite: 17 FCC Rcd 11613 -- affirmed *Report and Order*
- ◆ Available at FCC web site through "EDOCS"
 - Visit "<http://www.fcc.gov/searchtools.html>" and select EDOCS

Service Rules

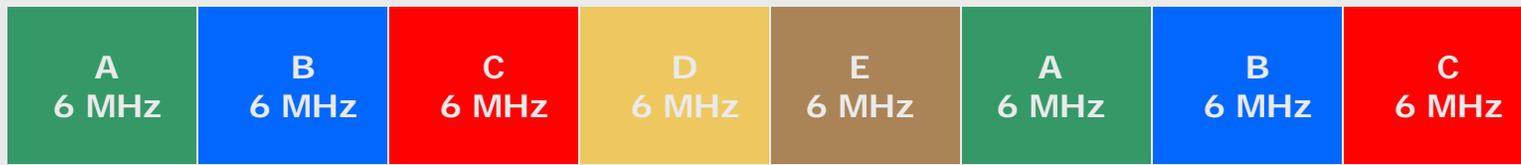
- ◆ Permissible licensed services
 - ◆ Band plan
 - ◆ Geographic area licenses
 - ◆ Licensing rules / Part 27 general framework
 - ◆ Voluntary Band clearing
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Permissible Licensed Services

- ◆ Flexible use approach
- ◆ Fixed, mobile, and broadcast services allowed (*see* § 27.2(a)), subject to the technical rules

Band Plan

Lower 700 MHz Band Channelization



TV Channelization

TV Ch. 52	TV Ch. 53	TV Ch. 54	TV Ch. 55	TV Ch. 56	TV Ch. 57	TV Ch. 58	TV Ch. 59
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Band Plan, continued

- ◆ Three 12 MHz blocks (A, B, and C) each consisting of a pair of 6 MHz channels, (§ 27.5(c)(1)); and
- ◆ Two 6 MHz blocks (D and E) of contiguous, unpaired spectrum, (§ 27.5(c)(2))
- ◆ Each block corresponds with either one or two 6 MHz television channels

Geographic Area Licenses

- ◆ Two 6 MHz blocks of contiguous, unpaired spectrum will be assigned over 6 Economic Area Groupings (EAGs), blocks D and E (§ 27.6(c)(1))
- ◆ Two of the three 12-megahertz blocks of paired spectrum also assigned over 6 EAGs, blocks A and B (§ 27.6(c)(1))
- ◆ The remaining 12-megahertz block of paired spectrum will be licensed over 734 Metropolitan Statistical Areas (MSAs) and Rural Service Areas (RSAs), block C (§ 27.6(c)(2))

Licensing Rules

- ◆ Part 27 framework
- ◆ License term and renewal expectancy
- ◆ Build-out requirements
- ◆ Partitioning / Disaggregation

Part 27 Framework

- ◆ Part 27 framework generally applies to band
- ◆ Flexible licensing approach
- ◆ Similar approach taken in the Upper 700 MHz commercial band

License Term and Renewal

- ◆ Licenses expire January 1, 2015
(see § 27.13(b))
- ◆ Exception: a licensee providing broadcast services must seek renewal after eight years
(see § 27.13(b))
- ◆ Right to a renewal expectancy established for licensees which satisfy the performance/build-out requirements
(see § 27.14(b))

Build-out Requirements

- ◆ No specific benchmarks to afford flexibility
- ◆ “Substantial service” must be provided to service area before the end of their license term (*e.g.*, January 1, 2015 for non-broadcasters) (*see* § 27.14(a))
- ◆ Several “safe harbor” standards established in Part 27 Report and Order can be invoked to demonstrate substantial service
- ◆ Note that substantial service standard requires the licensee to build out in rural areas as well as urban; build-out limited to urban areas, even if otherwise compliant, is not necessarily assured of license renewal.
- ◆ Same rules apply as in Upper 700 MHz commercial band

Partitioning and Disaggregation

- ◆ Partitioning (dividing geographic areas) and disaggregation (dividing spectrum) are permitted
- ◆ Two options for buildout
- ◆ (see § 27.15)

Voluntary Band Clearing

- ◆ Policy differs somewhat from approach used in Upper 700 MHz commercial band; *e.g.*, “presumptions” not extended to Lower 700 MHz band
- ◆ Commission will consider regulatory requests needed to implement voluntary band-clearing agreements; relevant public interest factors include: provision of new or expanded wireless services, effect on DTV transition, and loss of broadcast service

Technical Rules

- ◆ Part 27 framework
 - ◆ Power limits
 - ◆ Emission limits
 - ◆ Signal strength limits
 - ◆ Incumbent TV station protection
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Part 27 Framework

- ◆ Commission adopted essentially the same technical rules that were adopted for commercial systems operating in the Upper 700 MHz (746-794 MHz) band
- ◆ Part 27 technical rules generally apply, with a few exceptions...

Power Limits

- ◆ 50 kW ERP power limit for base stations (compared to the 1 kW ERP power limit for 746-794 MHz base stations) (§27.50(c)(1))
- ◆ Notification requirement (*see* §27.50(c)(5))
- ◆ 30 watts ERP power limit for mobile and control stations and 3 watt ERP power limit for portable stations (§27.50(c)(2), (3))
- ◆ RF safety compliance required (§27.52)

Emission Limits

- ◆ The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log (P)$ dB (§ 27.53(f))

Signal Strength Limits

- ◆ Field strength limit: 40 dB μ V/m (§ 27.55)
- ◆ Licensees operating at power levels greater than 1 kW ERP must comply with a Power Flux Density limitation -- *i.e.*, must limit PFD on the ground within one kilometer of base stations to 3000 microwatts per square meter (§ 27.55)

Incumbent TV Protection

- ◆ Licensees must select 1 of 4 methods to meet TV/DTV protection requirements (see § 27.60)
 1. Geographic separation
 2. Desired-to-Undesired (D/U) signal ratios
 3. Submit engineering study
 4. Obtain written agreement

AUCTION #60 INFORMATION WEBSITES

- ◆ Auction Branch: wireless.fcc.gov/auctions
General Information
Pre Auction, Auction, and Post Auction Links
- ◆ Wireless Telecommunications Bureau:
wireless.fcc.gov
FCC Rules and Regulations
700 MHz Service Rules
- ◆ Consolidated Database System (CDBS):
www.fcc.gov/mb/video/
Due Diligence Search

Service Rules

THE END

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Any Questions?

Contact: Keith Harper, 202-418-0620, Keith.Harper@fcc.gov

*Lower 700 MHz Band C Block
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Overview of
Due Diligence

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May 24, 2005

Introduction

- ◆ Due Diligence Overview
 - ◆ Auction Background
 - ◆ Pending Matters
 - ◆ Incumbency Issues
 - ◆ Required Research
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Due Diligence

- ◆ Due diligence: What is required before you place your bid.

Due Diligence

- ◆ Information to aid potential bidders with their research and evaluation of the radio spectrum at the Lower 700 MHz band C block, *e.g.*, 710-716/740-746 MHz bands or TV Channels 54 and 59
- ◆ Presents issues that should be considered by potential bidders when formulating their business strategies
- ◆ Due Diligence information contained in the forthcoming Due Diligence Announcement and the Procedures PN (Public Notice DA 05-737)
- ◆ Visit the auctions website at...
<http://wireless.fcc.gov/auctions/>

Auction Background

- ◆ Auction No. 60 will offer 5 C block licenses in the Lower 700 MHz band that remained unsold in Auction No. 49, which closed on June 13, 2003.
- ◆ List of Auction No. 49 winning bidders contained in that auction's "*Closing PN*"

Pending Matters

- ◆ Certain matters relating to licenses available at auction may be pending or subject to administrative or judicial review
- ◆ Such matters may include, *e.g.*, waiver requests, petitions to deny, petitions for reconsideration, applications for review, petitions for rulemaking, etc.

Pending Matters, continued

- ◆ Some matters may not be resolved before the commencement of the auction
 - ◆ Resolution of these matters could affect the availability of spectrum purchased at auction and must be considered by potential bidders
 - ◆ Make periodic, and continuing, inquiries to the Office of the Secretary and other available resources
- 

Pending Matters, continued

- ◆ Read forthcoming Due Diligence Announcement
- ◆ The Commission makes no representations or guarantees that matters discussed in that Public Notice are the only pending matters that could affect availability of spectrum

Incumbents

- ◆ Lower 700 MHz Band reclaimed as a result of the DTV transition
- ◆ Lower 700 MHz Band is significantly encumbered
- ◆ Incumbent broadcasters will continue to operate throughout the transition
- ◆ Co-channel and adjacent channel incumbents must be protected from interference

Incumbents, continued

- ◆ Be aware of numerous incumbent licensees, permittees and applicants
- ◆ Be aware of pending applications and waiver requests to change existing authorizations
- ◆ Be aware of pending applications proposing to modify, or establish new, NTSC and DTV channels
- ◆ Be aware of pending rulemaking petitions proposing to change, or to create new, NTSC and DTV allotments that could affect the availability of spectrum...

<http://www.fcc.gov/mb/video/files/ntscchan.html> and

<http://www.fcc.gov/mb/video/files/dtvchan.html>

Incumbents, continued

- ◆ Read forthcoming Due Diligence Announcement and review Attachment B, NTSC and DTV incumbents
- ◆ The Commission makes no representations or guarantees that the listed licensees are the only licensees, permittees and/or applicants that could affect spectrum availability or operations in the Lower 700 MHz band

Do your Due Diligence

- ◆ Do your homework
- ◆ Research prospective markets and spectrum
- ◆ Evaluate the nature and extent of possible encumbrances in the Lower 700 MHz band C block (which correspond to TV Channels 54 and 59) as well as on adjacent channels (*e.g.*, channels 53, 55, 58 and 60)
- ◆ Be familiar with applicable Commission rules and proceedings

It Is Your Responsibility

- ◆ As potential bidders, you are solely responsible for identifying associated risks, and investigating and evaluating the degree to which such matters may affect your ability to bid on, otherwise acquire, or make use of licenses available in the auction

Database Research

- ◆ Incumbent licensee information about is available through the Media Bureau's licensing database, the Consolidated DataBase System (CDBS), on the Internet...

http://svartifoss2.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm

- ◆ Commission makes no representations or guarantees regarding the accuracy or completeness of its database

Database Research, continued

- ◆ Do not rely solely on database searches because the data relies on third party submissions
- ◆ Physically inspect any sites located in, or near, the geographic area for which you plan to bid

Due Diligence

- ◆ Potential bidders are reminded that there a number of incumbent TV broadcast licensees already licensed and operating in the Lower 700 MHz band
- ◆ Licensing records are contained in the Media Bureau's Consolidated Database System (CDBS) which may be researched at...

www.fcc.gov/mb/video/

TV Station Incumbent Search

To perform TV Database query...

Go to www.fcc.gov/mb/video/tvq.html

Select State

enter appropriate state - PR

Select TV channel range

enter channel range: 53 – 55, 58 – 60

(2 separate queries required)

TV Station Incumbent Search , continued...

Select Services: All services

Select Record Types: All records

Select Output Type: Various choices

Click Submit Data button

View Search Results

INCUMBENT CDBS Record Listing for NTSC & DTV CHANNELS 53-55 AND 58-60 AS OF 5/19/05

Channel	State	City	Call Sign	Facility ID	Name	ARN	Status	Service
53	PR	ARECIBO	WCCV-TV	3001	ASOCIACION EVANGELISTICA CRISTO VIENE INC.	19991101AGR	CP	DT
54	PR	YAUCO	W54AQ	42151	ASOCIACION EVANGELISTICA CRISTO VIENE INC.	198904171Q	LIC	TX
54	PR	ARECIBO	WCCV-TV	3001	ASOCIACION EVANGELISTICA CRISTO VIENE INC.	19950719KH	LIC	TV
55	PR	SAN JUAN	WIPR-TV	53859	PUERTO RICO PUBLIC BROADCASTING CORP.	20000426ABF	CP	DT
58	PR	CAGUAS	WUJA	8156	CAGUAS EDUCATIONAL TV, INC.	19851107KE	LIC	TV
58	PR	MAYAGUEZ	W34CI	71730	WESTERN BROADCASTING CORP. OF PUERTO RICO	JG0601UA	CP	TX
59	PR	BAYAMON	WDWL	4110	BAYAMON CHRISTIAN NETWORK	20000419ABS	CP	DT
60	PR	SABANA GRANDE	W60AA	71726	WESTERN BROADCASTING CORP. OF PUERTO RICO	1432	LIC	TX
60	PR	ARECIBO	WMEI	26676	HECTOR NEGRONI CARTAGENA	19960415KE	CP MOD	TV
60	PR	ARECIBO	WMEI	26676	HECTOR NEGRONI CARTAGENA	20001220ABS	APP	TV

Due Diligence: Summary

- ◆ Research possible encumbrances in the band and understand incumbents must be protected from interference
- ◆ Information discussed here is in the forthcoming Due Diligence Announcement and the Procedures PN (Public Notice DA 05-737)
- ◆ Commission makes no representations or guarantees regarding its due diligence information
- ◆ You are solely responsible for identifying the risks involved and for conducting the proper investigation of your prospective markets

Due Diligence

THE END

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Any Questions?

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