

f. The adjacent Region reviews the application. If the application is approved, a letter of concurrence shall be sent, via the CAPRAD database, to the initiating Regional chairperson within thirty (30) calendar days.

*II. Dispute Resolution*

(1) If the adjacent Region(s) cannot approve the request, the adjacent Region shall document the reasons for partial or non-concurrence, and respond within 10 (Ten) calendar days via email. If the applying Region cannot modify the application to satisfy the objections of the adjacent Region then, a working group comprised of representatives of the two Regions shall be convened within thirty (30) calendar days to attempt to resolve the dispute. The working group shall then report its findings within thirty (30) calendar days to the Regional chairpersons email (CAPRAD database). Findings may include, but not be limited to:

- (i) Unconditional concurrence;
- (ii) conditional concurrence contingent upon modification of applicant's technical parameters; or
- (iii) partial or total denial of proposed frequencies due to inability to meet co-channel/adjacent channel interference free protection to existing licensees within the adjacent Region.

(2) If the Inter-Regional Working Group cannot resolve the dispute, then the matter shall be forwarded for evaluation to the National Plan Oversight Committee (NPOC)<sup>2</sup>, of the National Public Safety Telecommunications Council. Each Region involved in the dispute shall include a detailed explanation of its position, including

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<sup>2</sup> contour. Other definitions of service area or interference shall be justified with an accompanying Memorandum of Understanding (MOU) or other application documentation between agencies, i.e. mutual aid agreements.

engineering studies and any other technical information deemed relevant. The NPOC will, within thirty (30) calendar days, report its recommendation(s) to the Regional chairpersons via the CAPRAD database. The NPOC's decision may support either of the disputing Regions or it may develop a proposal that it deems mutually advantageous to each disputing Region.

g. Where adjacent Region concurrence has been secured, and the channel assignments would result in no change to the Region's currently Commission approved channel assignment matrix. The initiating Region may then advise the applicant(s) that their application may be forwarded to a frequency coordinator for processing and filing with the Commission.

h. Where adjacent Region concurrence has been secured, and the channel assignments would result in a change to the Region's currently Commission approved channel assignment matrix, then the initiating Region shall file with the Commission a *Petition to Amend* their current Regional plan's frequency matrix, reflecting the new channel assignments, with a copy of the *Petition* sent to the adjacent Regional chairperson(s).

i. Upon Commission issuance of an *Order* adopting the amended channel assignment matrix, the initiating Regional chairperson will send a courtesy copy of the *Order* to the adjacent Regional chairperson(s) and may then advise the applicant(s) that they may forward their applications to the frequency coordinator for processing and filing with the Commission.

### III. CONCLUSION

3. IN AGREEMENT HERETO, Region 51 and Region 49 do hereunto set their signatures the day and year first above written.

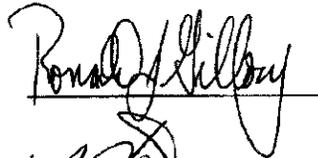
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<sup>2</sup> The Regional Plan Oversight Committee (RPOC) is a committee within the National Public Safety Telecommunications Council (NPSTC) established to arbitrate disputes between 700 MHz Regions that cannot be resolved by the impacted Regions.

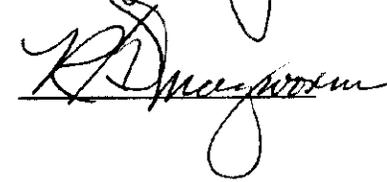
Respectfully,

[all signatories to agreement]

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Date: 8/29/06

**Regional Chairman**  
**Central Texas (Austin Area)**  
Ronald G. Mayworm  
Radio System Engineer  
City of Bryan, Texas  
P.O. Box 1585  
Bryan, TX 77805-1585  
PH: 979-209-5475  
FX: 979-209-5489  
Email: [ron@ktsignals.com](mailto:ron@ktsignals.com)

**Regional Chairman**  
**Texas- East**  
Ron Gillory  
Houston Police Department  
Communications Management Division  
61 Reisner Street  
Houston, TX 77002  
PH: 713-247-5744  
FX: 713-247-4368  
Email: [sezron@hic.net](mailto:sezron@hic.net)

## 17.4. Region 53

***Inter-Regional Coordination Procedures  
and  
Procedures for Resolution of Disputes  
That May Arise Under FCC Approved Plans***

***I. Coordination Procedures***

**I. INTRODUCTION**

1. This is a mutually agreed upon Inter-Regional Coordination Procedures Agreement (Agreement) by and between the following 700 MHz Regional Planning Committees, Region 51 and Region 53.

**II. INTER-REGIONAL COORDINATION AGREEMENT**

2. The following is the specific procedure for inter-regional coordination which has been agreed upon by Region 51 and Region 53, and which will be used by the Regions to coordinate with adjacent Regional Planning Committees.

a. An application filing window is opened or the Region announces that it is prepared to begin accepting applications on a first-come/first-served basis.

b. Applications by eligible entities are accepted.

c. An application filing window (if this procedure is being used) is closed after appropriate time interval.

d. Intra-regional review and coordination takes place, including a technical review resulting in assignment of channels.

e. After intra-regional review, a copy of those frequency-specific applications requiring adjacent Region approval, including a definition statement of proposed service area, shall then be forwarded to the adjacent Region(s) for review.<sup>1</sup> This information will be sent to the adjacent Regional chairperson(s) using the CAPRAD database.

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<sup>1</sup> If an applicant's proposed service area or interference contour extends into an adjacent Public Safety Region(s), the application must be approved by the affected Region(s). Service area shall normally be defined as the area included within the geographical boundary of the applicant, plus three (3) miles. Interference contour shall normally be defined as a 5 dBu co-channel contour or a 60 dBu adjacent channel

f. The adjacent Region reviews the application. If the application is approved, a letter of concurrence shall be sent, via the CAPRAD database, to the initiating Regional chairperson within thirty (30) calendar days.

*II. Dispute Resolution*

(1) If the adjacent Region(s) cannot approve the request, the adjacent Region shall document the reasons for partial or non-concurrence, and respond within 10 (Ten) calendar days via email. If the applying Region cannot modify the application to satisfy the objections of the adjacent Region then, a working group comprised of representatives of the two Regions shall be convened within thirty (30) calendar days to attempt to resolve the dispute. The working group shall then report its findings within thirty (30) calendar days to the Regional chairpersons email (CAPRAD database). Findings may include, but not be limited to:

- (i) Unconditional concurrence;
- (ii) conditional concurrence contingent upon modification of applicant's technical parameters; or
- (iii) partial or total denial of proposed frequencies due to inability to meet co-channel/adjacent channel interference free protection to existing licensees within the adjacent Region.

(2) If the Inter-Regional Working Group cannot resolve the dispute, then the matter shall be forwarded for evaluation to the National Plan Oversight Committee (NPOC)<sup>2</sup>, of the National Public Safety Telecommunications Council. Each Region involved in the dispute shall include a detailed explanation of its position, including

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<sup>2</sup> contour. Other definitions of service area or interference shall be justified with an accompanying Memorandum of Understanding (MOU) or other application documentation between agencies, i.e. mutual aid agreements.

engineering studies and any other technical information deemed relevant. The NPOC will, within thirty (30) calendar days, report its recommendation(s) to the Regional chairpersons via the CAPRAD database. The NPOC's decision may support either of the disputing Regions or it may develop a proposal that it deems mutually advantageous to each disputing Region.

g. Where adjacent Region concurrence has been secured, and the channel assignments would result in no change to the Region's currently Commission approved channel assignment matrix. The initiating Region may then advise the applicant(s) that their application may be forwarded to a frequency coordinator for processing and filing with the Commission.

h. Where adjacent Region concurrence has been secured, and the channel assignments would result in a change to the Region's currently Commission approved channel assignment matrix, then the initiating Region shall file with the Commission a *Petition to Amend* their current Regional plan's frequency matrix, reflecting the new channel assignments, with a copy of the *Petition* sent to the adjacent Regional chairperson(s).

i. Upon Commission issuance of an *Order* adopting the amended channel assignment matrix, the initiating Regional chairperson will send a courtesy copy of the *Order* to the adjacent Regional chairperson(s) and may then advise the applicant(s) that they may forward their applications to the frequency coordinator for processing and filing with the Commission.

### III. CONCLUSION

3. IN AGREEMENT HERETO, Region 51 and Region 53 do hereunto set their signatures the day and year first above written.

---

<sup>2</sup> The Regional Plan Oversight Committee (RPOC) is a committee within the National Public Safety Telecommunications Council (NPSTC) established to arbitrate disputes between 700 MHz Regions that cannot be resolved by the impacted Regions.

Respectfully,

[all signatories to agreement]

\_\_\_\_\_  
  
\_\_\_\_\_  
  
\_\_\_\_\_

Date: 8/8/06

**Regional Chairman**  
**Southern Texas**  
Mr. Victor Perez  
Assistant Information Services Manager  
City of San Antonio  
515 S. Frio  
San Antonio, TX 78207  
PH: 210-207-4007  
FX: 210-207-7366  
Email: [vperez@ci.sat.tx.us](mailto:vperez@ci.sat.tx.us)

**Regional Chairman**  
**Texas- East**  
Ron Gillory  
Houston Police Department  
Communications Management Division  
61 Reisner Street  
Houston, TX 77002  
PH: 713-247-5744  
FX: 713-247-4368  
Email: [sezron@hpc.net](mailto:sezron@hpc.net)

## 18. Adjacent Regions Concurrences

### 18.1. Region 18

Page 1 of 6

#### Frankhouser, Douglas - HAS

**From:** Bill Vincent [billvincent@lafayettegov.net]  
**Sent:** Thursday, August 09, 2007 10:38 AM  
**To:** Douglas.Frankhouser@cityofhouston.net  
**Subject:** FW: Region 51 700 MHz Plan

Doug Frankhouser, Chair  
Region 51

Dear Mr. Frankhouser:

Region 18 is in receipt of your proposed 700 MHz Region Plan as modified with the adjacent region coordination language as agreed to in the emails below.

You may use this email as the official written concurrence of Region 18 to your proposed 700 MHz Regional Plan.

Sincerely,

William Vincent, Chair  
Region 18  
(337-291-5060)  
eoc@lafayettegov.net

-----Original Message-----

**From:** Bill Vincent [mailto:billvincent@worldnet.att.net]  
**Sent:** Thursday, August 09, 2007 10:28 AM  
**To:** Bill Vincent  
**Subject:** Fw: Region 51 700 MHz Plan

----- Original Message -----

**From:** Frankhouser, Douglas - HAS  
**To:** Bill Vincent  
**Sent:** Monday, August 06, 2007 4:32 PM  
**Subject:** RE: Region 51 700 MHz Plan

Bill:

Per your email of concurrence, I added that paragraph to the plan. I sent an email July 19th (to all the chairs adjacent to R51) indicating that the paragraph had been added and the new version of the document uploaded to the R51 website, and that I would update the CAPRAD website shortly after that (which was done a few days later). Not sure what happened if you didn't get that email. If you need anything else please advise.

Thanks!

*Doug*

8/9/2007

**Frankhouser, Douglas - HAS**

**From:** Bill Vincent [billvincent@lafayettegov.net]  
**Sent:** Monday, January 21, 2008 9:39 AM  
**To:** 'Frankhouser, Douglas - HAS'; Mayworm, Ronald G; j.scrivner@dallascityhall.com; rmorales@sanantonio.gov; Lafayette EOC  
**Subject:** RE: Region 51 700 MHz Plan

Doug,

Region 18 concurs with these Region 51 frequency packing tables.

William R. Vincent, Sr., Chair  
Region 18 (Louisiana) 700 MHz. Planning Committee

-----Original Message-----

**From:** Frankhouser, Douglas - HAS [mailto:Douglas.Frankhouser@cityofhouston.net]  
**Sent:** Friday, January 18, 2008 11:03 AM  
**To:** Mayworm, Ronald G; j.scrivner@dallascityhall.com; rmorales@sanantonio.gov; Lafayette EOC  
**Subject:** Region 51 700 MHz Plan

Gents:

As per our previous emails, the Region 51 700 MHz has been revised to meet the changes issued by the FCC second order. The frequency packing tables were sent by previous email earlier this week. The Region 51 website is:

<http://www.region51.hctx.net>.

I will also ship a hardcopy today.

As part of our conversations during the recent CAPRAD conference calls, we'd like to have our frequency packing considered when they do the CAPRAD packing. For that to be considered, I need each of your concurrences as soon as possible.

We would greatly appreciate it if we could have your re-concurrences no later than Friday, February 15th, 2008.

Thanks!

*Doug Frankhouser*

*Chair, Region 51*

*Manager, Data & Wireless Systems  
Houston Airport System  
Public Safety & Technology Division  
16930 John F Kennedy Blvd  
Houston, TX 77032  
Office: 281.233.1344*

1/30/2008

## 18.2. Region 40

May 18, 2007

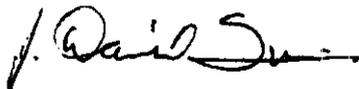
Mr. Doug Frankhouser, Chair Region 51  
Manager, Data & Wireless Systems  
Houston Airport System  
Public Safety & Technology Division  
16930 John F. Kennedy Blvd.  
Houston, TX 77032

Dear Mr. Frankhouser,

Region 40 has received your proposed 700 MHz plan and submitted it to the committee for review and comment on May 4, 2007. The Region 40 committee subsequently formally approved Region 51's plan.

Let this letter serve as the official written concurrence of Region 40 to your proposed 700 MHz Regional Plan.

Sincerely,



J. Daniel Scrivner, PE  
Chairman Region 40

City of Dallas – CIS Department  
3131 Dawson St.  
Dallas, TX 75226  
214-670-7995  
j.scrivner@dallascityhall.com

Mr. Douglas Frankhouser  
Houston Airport System  
Public Safety and Technolgy  
16930 John F. Kennedy Blvd  
Houston, Tx. 77032

Dear Mr. Frankhouser: The purpose of this notification is to inform you that Region 40 has reviewed Region 51's 700 MHz Plan, and that we concur with the revised 700 MHz Plan. Fred Keithley, Director of Community Services and Public Safety Communications, and Region 40 Coordinator

**Fred Keithley**  
Director, Department of Community Services and  
Public Safety Communications  
North Central Texas Council of Governments  
P.O. Box 5888  
Arlington, TX 76005-5888  
Phone: 817-695-9171  
FAX: 817-695-9164  
E-mail: [fkeithley@nctcog.org](mailto:fkeithley@nctcog.org)  
Website: [www.nctcog.org](http://www.nctcog.org)

## 18.3. Region 49



## Region 49 700 MHz Regional Planning Committee [www.region49.org](http://www.region49.org)

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August 14, 2007

Doug Frankhouser, Chair, Region 51 (Texas – East)  
Manager, Data & Wireless Systems  
Houston Airport System  
Public Safety & Technology Division  
16930 John F. Kennedy Blvd.  
Houston, TX 77032

Dear Mr. Frankhouser,

Region 49 (Central Texas) has received a copy of your proposed 700 MHz Regional Plan, submitted to this committee on May 1, 2007, and revised on June 18, 2007. Region 49 committee members have been asked to review your plan, and no objections have been received from any of our region's members.

Therefore, this letter serves as the official, written concurrence of Region 49 to your proposed 700 MHz Region 51 Plan.

Sincerely,

A handwritten signature in black ink, appearing to read "Ronald G. Mayworm".

Ronald G. Mayworm  
Chairman

Ron Mayworm, Chairman  
PO Box 1585  
Bryan TX 77805  
(979) 209-5475  
(979) 209-5489 [FAX]  
[ron@ktsignals.com](mailto:ron@ktsignals.com)

Charles Brotherton, Secretary  
209 W. 9<sup>th</sup> Street, Suite 270  
Austin TX 78767  
(512) 854-4895  
(512) 854-4786 [FAX]  
[Charles.brotherton@co.travis.tx.us](mailto:Charles.brotherton@co.travis.tx.us)

**Frankhouser, Douglas - HAS**

---

**From:** Mayworm, Ronald G [rmayworm@bryantx.gov]  
**Sent:** Tuesday, January 29, 2008 11:37 AM  
**To:** Frankhouser, Douglas - HAS  
**Cc:** Charles Brotherton  
**Subject:** Region 49 Concurrence

Doug,

Region 49 concurs with the Region 51 700 MHz plan and frequency sort as reflected in revision 2, dated January, 2008.

Thank you for the opportunity to review your plan, and good luck with obtaining FCC approval.

**Ron Mayworm**  
Radio System Engineer  
City of Bryan  
P. O. Box 1000  
Bryan, TX 77805  
(979) 209-5475  
mayworm@bryantx.gov

1/30/2008

## 18.4. Region 53



# CITY OF SAN ANTONIO

P O BOX 838968  
SAN ANTONIO, TEXAS 78283-3966

August 21, 2007

Doug Frankhouser, Chair Region 51  
Manager, Data & Wireless Systems  
Houston Airport Systems  
Public Safety & Technology Division  
16930 John F. Kennedy Blvd  
Houston, TX 77032

Mr. Frankhouser,

Region 53 is in receipt of your proposed 700 MHz Regional Plan, submitted to this Committee. The Regional Chair and Vice Chair discussed your plan and saw no apparent conflict with our bordering areas at present time. If such conflict were to occur we request that the regional chairs find resolution accordingly.

This letter serves as the official, written concurrence of Region 53 to your proposed 700 MHz Regional Plan.

Regards,

A handwritten signature in black ink, appearing to read "Richard Morales, Jr.".

Richard Morales, Jr., Chair Region 53 (700 MHz)  
Manager, Radio Systems  
City of San Antonio  
3440 E. Houston Street  
San Antonio, Texas 78219

"AN EQUAL OPPORTUNITY EMPLOYER"

**Frankhouser, Douglas - HAS**

---

**From:** Richard Morales (ITSD) [Richard.Morales@sanantonio.gov]  
**Sent:** Friday, February 01, 2008 2:15 PM  
**To:** Frankhouser, Douglas - HAS  
**Subject:** RE: Region 51 700 MHz Plan

I concur.....

Region 53

*Richard Morales, Jr.  
Manager, Radio Systems  
Communications Division (ITSD)  
City of San Antonio, Texas  
(210) 207-7022 or cell (210) 215-7022  
Richard.Morales@Sanantonio.Gov*

This message to include any attachments, contains confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, you should delete this message. Any disclosure, copying, or distribution of this message, or the taking of any action based on it, is strictly prohibited.

---

**From:** Frankhouser, Douglas - HAS [mailto:Douglas.Frankhouser@cityofhouston.net]  
**Sent:** Monday, January 28, 2008 2:49 PM  
**To:** Mayworm, Ronald G; j.scrivner@dallascityhall.com; Richard Morales (ITSD)  
**Subject:** RE: Region 51 700 MHz Plan

Gents:

I trust that you've received the hardcopy of the revised R51 700 plan. I have received re-concurrence from Region 18. If possible, I would appreciate hearing from you by Thursday (1/31) so that I can let Karla Jurens at TX Sheriff's Association that we have re-concurrence from our surrounding regions for our packing plan.

Thanks!

*Doug Frankhouser*

*Chair, Region 51*

*Manager, Data & Wireless Systems  
Houston Airport System  
Public Safety & Technology Division  
16930 John F Kennedy Blvd  
Houston, TX 77032*

2/1/2008

## 19. DTV Protection and Incumbency

County	Channel	Call Sign	Location	Latitude NAD83	Longitude NAD83
<u>Fort Bend County</u>	67	<u>KFTH-TV</u>	Alvin	29°34'15"N	95°30'37"W
<u>Harris County</u>	67	<u>KFTH-TV</u>	Alvin	29°34'15"N	95°30'37"W
<u>Houston County</u>	63	<u>NEW</u>	Crockett	31°14'39.6"	95°19'53.8"W
	63	<u>NEW</u>	Midland	32°5'51"N	102°17'23"W
	65	<u>K65HK</u>	Crockett	31°14'39.6"	95°19'53.8"W
	69	<u>K69IN</u>	Crockett	31°14'39.6"	95°19'53.8"W
	69	<u>KVDO-LP</u>	Clear Lake	29°35'36"N	95°3'13"W
<u>Jasper County</u>	62	<u>NEW</u>	Cantil	35°20'36"N	118°1'54"W
	62	<u>NEW</u>	Hemphill	31°21'45"N	93°53'45"W
	62	<u>NEW</u>	Jasper	30°59'48"N	93°58'55"W
	62	<u>NEW</u>	Odessa	31°47'40"N	102°35'15"W
	62	<u>NEW</u>	Vidor	30°6'50"N	94°1'44"W
	66	<u>KVHP-LP</u>	Jasper	30°58'32"N	93°59'25"W
<u>Jefferson County</u>	69	<u>K69IY</u>	Beaumont	30°0'6"N	94°5'37"W
<u>Orange County</u>	62	<u>NEW</u>	Cantil	35°20'36"N	118°1'54"W
	62	<u>NEW</u>	Hemphill	31°21'45"N	93°53'45"W
	62	<u>NEW</u>	Jasper	30°59'48"N	93°58'55"W
	62	<u>NEW</u>	Odessa	31°47'40"N	102°35'15"W
	62	<u>NEW</u>	Vidor	30°6'50"N	94°1'44"W
	64	<u>KUIL-LP</u>	Beaumont	30°0'6"N	94°5'37"W
	66	<u>K66GD</u>	Vidor	30°6'50"N	94°1'44"W
	68	<u>NEW</u>	Beaumont	30°6'51"N	94°1'20"W
	69	<u>K69IY</u>	Beaumont	30°0'5.7"N	94°5'36.9"W
	69	<u>NEW</u>	Midland	32°5'51"N	102°17'23"W
<u>Sabine County</u>	62	<u>NEW</u>	Cantil	35°20'36"N	118°1'54"W
	62	<u>NEW</u>	Hemphill	31°21'45"N	93°53'45"W

	62	<u>NEW</u>	Jasper	30°59'48"N	93°58'55"W
	62	<u>NEW</u>	Odessa	31°47'40"N	102°35'15"W
	62	<u>NEW</u>	Vidor	30°6'50"N	94°1'44"W
<u>Walker County</u>	65	<u>K65HK</u>	Crockett	30°48'42.3~	95°42'14.2"W

### 19.1. FCC Rules 90.545 TV/DTV Interference Protection Criteria.

Public safety base, control, and mobile transmitters in the 764-776 MHz and 794-806 MHz frequency bands must be operated only in accordance with the rules in this section, to reduce the potential for interference to public reception of the signals of existing TV and DTV broadcast stations transmitting on TV Channels 62, 63, 64, 65, 67, 68 or 69. (a) D/U ratios. Licensees of public safety stations must choose site locations that are a sufficient distance from co-channel and adjacent channel TV and DTV stations, and/or must use reduced transmitting power or transmitting antenna height such that the following minimum desired signal to undesired signal ratios (D/U ratios) are met:

(1) The minimum D/U ratio for co-channel stations is 40 dB at the hypothetical Grade B contour (64 dB [micro] V/m) (88.5 kilometers or 55.0 miles) of the TV station or 17 dB at the equivalent Grade B contour (41 dB [micro] V/m) (88.5 kilometers or 55.0 miles) of the DTV station.

(2) The minimum D/U ratio for adjacent channel stations is 0 dB at the hypothetical Grade B contour (64 dB [micro] V/m) (88.5 kilometers or 55.0 miles) of the TV station or -23 dB at the equivalent Grade B contour (41 dB [micro] V/m) (88.5 kilometers or 55.0 miles) of the DTV station.

(b) Maximum ERP and HAAT. The maximum effective radiated power (ERP) and the antenna height above average terrain (HAAT) of the proposed land mobile base station, the associated control station, and the mobile transmitters shall be determined using the methods described in this section.

(1) Each base station is limited to a maximum ERP of 1000 watts.

(2) Each control station is limited to a maximum ERP of 200 watts and a maximum HAAT of 61 m. (200 ft).

(3) Each mobile station is limited to a maximum ERP of 30 watts and a maximum antenna height of 6.1 m. (20 ft.).

(4) Each portable (handheld) transmitter is limited to a maximum ERP of 3 watts.

(5) All transmitters are subject to the power reductions given in

Figure B of Sec. 90.309 of this chapter, for antenna heights higher than 152 meters (500 ft).

(c) **Methods.** The methods used to calculate TV contours and antenna heights above average terrain are given in Sec. Sec. 73.683 and 73.684 of this chapter. Tables to determine the necessary minimum distance from the public safety station to the TV/DTV station, assuming that the TV/DTV station has a hypothetical or equivalent Grade B contour of 88.5 kilometers (55.0 miles), are located in Sec. 90.309 and labeled as Tables B, D, and E. Values between those given in the tables may be determined by linear interpolation. The locations of existing and proposed TV/DTV stations during the transition period are given in Part 73 of this chapter and in the final proceedings of MM Docket No. 87-268.

The DTV allotments are:

State	City	NTSC TV Channel	DTV Channel	ERP (kW)	HAAT (m)
California	Stockton	61	62	63.5	874
California	Los Angeles	11	65	688.7	896
California	Riverside	62	68	180.1	723
California	Concord	42	63	61.0	856
Pennsylvania	Allentown	39	62	50.0	302
Pennsylvania	Philadelphia	6	64	1000.0	332
Pennsylvania	Philadelphia	10	67	791.8	354
Puerto Rico	Aguada	50	62	50.0	343
Puerto Rico	Mayaguez	16	63	50.0	347
Puerto Rico	Naranjito	64	65	50.0	142
Puerto Rico	Aguadilla	12	69	691.8	665

The transition period is scheduled to end on December 31, 2006. After that time, unless otherwise directed by the Commission, public safety stations will no longer be required to protect reception of co-channel or adjacent channel TV/DTV stations.

(1) Licensees of stations operating within the ERP and HAAT limits of paragraph (b) must select one of three methods to meet the TV/DTV protection requirements, subject to Commission approval:

(i) utilize the geographic separation specified in the tables referenced below;

(ii) Submit an engineering study justifying the proposed separations based on the parameters of the land mobile station and the parameters, including authorized and/or applied for facilities, of the TV/DTV station(s) it is trying to protect; or,

(iii) obtain written concurrence from the applicable TV/DTV station(s). If this method is chosen, a copy of the agreement must be submitted with the application.

(2) The following is the method for geographic separations.

(i) Base stations having an antenna height (HAAT) less than 152 m. (500 ft.) shall afford protection to co-channel and adjacent channel TV/DTV stations in accordance with the values specified in Table B (co-channel frequencies based on 40 dB protection)

and Table E (adjacent channel frequencies based on 0 dB protection) in Sec. 90.309 of this part. For base stations having an antenna height (HAAT) between 152-914 meters (500-3,000 ft.) the effective radiated power must be reduced below 1 kilowatt in accordance with the values shown in the power reduction graph in Figure B in Sec. 90.309 of this part. For heights of more than 152 m. (500 ft.) above average terrain, the distance to the radio path horizon will be calculated assuming smooth earth. If the distance so determined equals or exceeds the distance to the hypothetical or equivalent Grade B contour of a co-channel TV/DTV station (i.e., it exceeds the distance from the appropriate Table in Sec. 90.309 to the relevant TV/DTV station) an authorization will not be granted unless it can be shown in an engineering study (method 2) that actual terrain considerations are such as to provide the desired protection at the actual Grade B contour (64 dB[micro]V/m for TV and 41 dB[micro]V/m for DTV stations), or that the effective radiated power will be further reduced so that, assuming free space attenuation, the desired protection at the actual Grade B contour (64 dB[micro]V/m for TV and 41 dB[micro]V/m coverage contour for DTV stations) will be achieved. Directions for calculating powers, heights, and reduction curves are listed in Sec. 90.309 for land mobile stations. Directions for calculating coverage contours are listed in Sec. Sec. 73.683-685 for TV stations and in Sec. 73.625 for DTV stations.

(ii) Control and mobile stations (including portables) are limited in height and power and therefore shall afford protection to co-channel and adjacent channel TV/DTV stations in accordance with the values specified in Table D (co-channel frequencies based on 40 dB protection) in Sec. 90.309 of this part and a minimum distance of 8 kilometers (5 miles) from all adjacent channel TV/DTV station hypothetical or equivalent Grade B contours (adjacent channel frequencies based on 0 dB protection for TV stations and -23 dB for DTV stations). Since control and mobile stations may affect different TV/DTV stations than the associated base station, particular care must be taken by applicants to ensure that all the appropriate TV/DTV stations are considered (e.g., a base station may be operating on TV Channel 64 and the mobiles on TV Channel 69, in which case TV Channels 63, 64, 65, 68, and 69 must be protected). Since mobiles and portables are able to move and communicate with each other, licensees or coordinators must determine the areas where the mobiles can and cannot roam in order to protect the TV/DTV stations, and advise the mobile operators of these areas and their restrictions.

(iii) In order to protect certain TV/DTV stations and to ensure protection from these stations which may have extremely large contours due to unusual height situations, an additional distance factor must be used by all public safety base, control and mobile stations. For all co-channel and adjacent channel TV/DTV stations which have an HAAT between 350 and 600 meters, public safety stations must add the following DISTANCE FACTOR to the value obtained from the referenced Tables in Sec. 90.309 and to the distance for control and mobile stations on adjacent TV/DTV channels (96.5 km).

DISTANCE FACTOR = (TV/DTV HAAT-350) / 14 in kilometers, where HAAT is the TV or DTV station antenna height above average terrain obtained from its authorized or proposed facilities, whichever is greater.

(iv) For all co-channel and adjacent channel TV/DTV stations which have an antenna height above average terrain greater than 600 meters, public safety stations must add 18 kilometers as the DISTANCE FACTOR to the value obtained from the referenced Tables in Sec. 90.309 and to the distance for control and mobile stations on adjacent TV/DTV channels (96.5 km).

Note to Sec. 90.545: The 88.5 km (55.0 mi) Grade B service contour (64 dB[micro]V/m) is based on a hypothetical TV station operating at an effective radiated power of one megawatt, a transmitting antenna height above average terrain of 610 meters (2000 feet) and the Commission's R-6602 F(50,50) curves. See Sec. 73.699 of this chapter. Maximum facilities for TV stations operating in the UHF band are 5 megawatts effective radiated power at an antenna HAAT of 610 meters (2,000 feet).

See Sec. 73.614 of this chapter. The equivalent contour for DTV stations is based on a 41 dB [micro] V/m signal strength and the distance to the F(50,90) curve. See Sec. 73.625 of this chapter.