

## ENGINEERING EXHIBIT

### Application for Displacement Flash-Cut Construction Permit

prepared for

#### **Panhandle Telecasting LP**

K63GN Bovina, Etc., TX

Facility ID 51470

Ch. 38 (digital) 0.39 kW

*Panhandle Telecasting LP* (“*Panhandle*”) is the licensee of Low Power Television station K63GN, Channel 63, Bovina, Etc., TX, Facility ID 51470 (BLTTL-20030224AAD). The K63GN licensed operation on Channel 63 is displaced pursuant to §73.3572(a)(4)(ii). *Panhandle* proposes herein to change K63GN to Channel 38 and “flash cut” to digital operation. No change in site location is specified.

The proposed facility will operate on Channel 38 using a “simple” out of channel emission mask. A replacement nondirectional antenna will be employed, a Scala model SL-8, configured for the new channel. **Figure 1** depicts the 51 dB $\mu$  coverage contour of the proposed facility as well as the 74 dB $\mu$  contour of the licensed analog Channel 63. The use of the same transmitter site and the service area overlap shown demonstrates compliance with §73.3572 for a minor change.

The Channel 38 antenna system will be side-mounted on the existing K63GN antenna support structure, in place of the current Channel 63 antenna. No change to the overall structure height will result from this proposal. The geographic coordinates reflect a two second change in longitude to correspond to the associated Antenna Structure Registration data (number 1050831).

A detailed interference study per OET Bulletin 69<sup>1</sup> shows that the proposal complies with the Commission’s interference protection requirements toward all NTSC, DTV, television translator,

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<sup>1</sup>FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV*

LPTV, and Class A stations. The results, summarized in **Table 1**, show that any new interference does not exceed the Commission's interference limits (0.5 percent to full power and Class A stations, and 2.0 percent to secondary stations).

The nearest FCC monitoring station is 720 km distant at Douglas, AZ. This exceeds by a large margin the threshold minimum distance specified in §73.1030(c)(3) that would suggest consideration of the monitoring station. The site is not located within the areas requiring coordination with "quiet" zones specified in §73.1030(a) and (b). There are no AM stations within 3.2 kilometers of the site, based on information contained within the Commission's database. The site location is beyond the border areas requiring international coordination.

### **Human Exposure to Radiofrequency Electromagnetic Field (Environmental)**

The proposed transmitting antenna will be installed on an existing antenna support structure. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of §1.1306 of the FCC Rules. Therefore, it is believed that this application may be categorically excluded from environmental processing pursuant to §1.1306 of the Commission's rules.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and assuming 100 percent (worst-case) antenna relative field in downward elevations, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is  $1.6 \mu\text{W}/\text{cm}^2$ , which is 0.4 percent of the general population/uncontrolled maximum permitted exposure limit. This is well below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant from responsibility for taking any corrective action in the areas where the proposal's contribution is less than five percent.

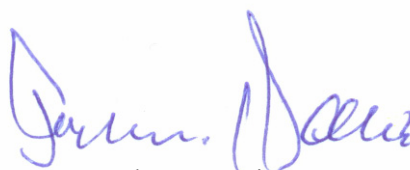
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*Coverage and Interference*, February 6, 2004 ("OET-69"). The implementation of OET-69 for this study followed the guidelines of OET-69 as specified therein. A cell size of 1 km was employed. Comparisons of various results of this computer program (run on a Sun Sparc processor) to the Commission's implementation of OET-69 show excellent correlation.

The general public will not be exposed to RF levels attributable to the proposal in excess of the FCC's guidelines. RF exposure warning signs will continue to be posted. With respect to worker safety, the applicant will coordinate exposure procedures with all pertinent stations and will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from RF electromagnetic field exposure in excess of FCC guidelines.

### **Certification**

The undersigned hereby certifies that the foregoing statement and associated attachments were prepared by him or under his direction, and that they are true and correct to the best of his knowledge and belief.



Joseph M. Davis, P.E.  
September 29, 2008

**Chesapeake RF Consultants, LLC**  
11993 Kahns Road  
Manassas, VA 20112  
703-650-9600

### List of Attachments

Figure 1	Coverage Contour Comparison
Table 1	Interference Analysis Results Summary
Form 346	Saved Version of Engineering Sections from FCC Form at Time of Upload

*This material was entered September 29, 2008 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's name and password, and electronic data may otherwise be altered in an unauthorized fashion, we cannot be responsible for changes made subsequent to our entry of this data and related attachments.*

**Figure 1**  
**Coverage Contour Comparison**  
**K63GN Bovina, Etc., TX**  
**Facility ID 51470**  
**Ch. 38 (digital) 0.39 kW**

prepared for  
**Panhandle Telecasting LP**

September, 2008

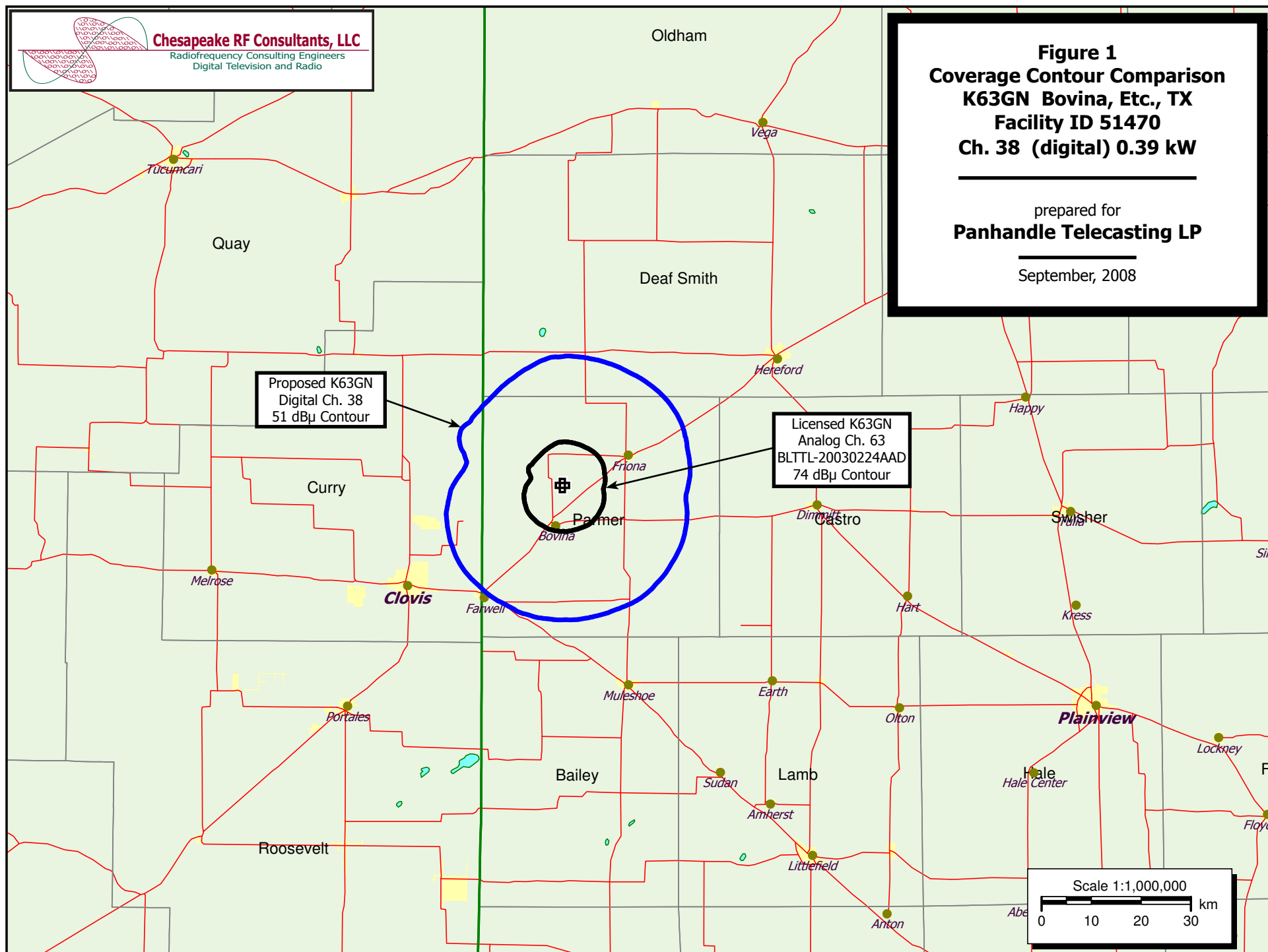


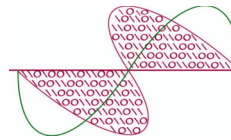
Table 1

**Interference Analysis Results Summary**

prepared for

**Panhandle Telecasting LP**

K63GN Bovina, Etc., TX

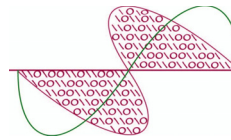
**Chesapeake RF Consultants, LLC**Radiofrequency Consulting Engineers  
Digital Television and Radio

Ch.	Call	City/State	Dist	Status	Application Ref. No.	---Population (1990 Census)---	
			(km)			Baseline	New Interference
24	K24DU	DORA NM	91.0	LIC	BLTT-19950526IG	---	none
24	K24DP	SAN JON NM	56.3	LIC	BLTT-19921228IH	---	none
24	KDAX-LP	AMARILLO TX	117.1	APP	BDISTTL-20070306ABB	---	none
24	KDFP-LP	PLAINVIEW TX	99.3	CP	BNPTTL-20000818ACH	---	none
30	K30DZ	SAN JON NM	56.3	LIC	BLTT-19930408IF	---	none
30	KAMM-LP	AMARILLO TX	116.4	LIC	BLTTL-20060908AAU	---	none
31	K31GC	FORREST, ETC. NM	82.1	LIC	BLTT-20050202ADK	---	none
31	K31IK	PLAINVIEW TX	99.3	CP	BNPTTL-20000818ABW	---	none
34	KCVP-LP	CLOVIS NM	35.5	CP	BMJPTTL-20000831AHY	---	none
34	KCVP-LP	CLOVIS NM	35.5	LIC	BLTT-19990715JB	---	none
34	K34EZ	FOREST/MCALISTER NM	82.9	LIC	BLTT-20000707AEH	---	none
34	K34GU	FORT SUMNER NM	136.9	LIC	BLTT-20060105AAU	---	none
35	K35FP	TUCUMCARI NM	97.3	LIC	BLTT-20020829ABW	---	none
35	K35CG	BOVINA TX	0.0	LIC	BLTT-19910712JK	---	none
36	KTMO-LP	AMARILLO TX	124.2	CP	BMJPTTL-20000830BPV	---	none
36	KTMO-LP	AMARILLO TX	124.2	LIC	BLTTL-19970519JA	---	none
36	K36CC	TULIA TX	103.4	LIC	BLTTL-20040408ABG	---	none
38	K38KW-D	ALAMOGORDO NM	340.7	CP	BDCCDTT-20061030AIC	---	none
38	K38IM	ALBUQUERQUE NM	333.9	LIC	BLTTL-20060414AAE	---	none
38	K35GY	CUBA NM	394.0	CP	BDISDTT-20060811ABW	---	none
38	K38EC	EAGLE NEST NM	303.9	LIC	BLTT-20040827AAS	---	none
38	K38EC	EAGLES NEST NM	303.9	CP	BDFCDTT-20060329AAF	---	none
38	K38HR	SANTA ROSA NM	170.6	LIC	BLTT-20040322AAK	---	none
38	K38HR	SANTA ROSA NM	170.6	CP	BDFCDTT-20060323AAR	---	none
38	K38FP	TUCUMCARI NM	97.3	LIC	BLTT-20010514AAL	---	none
38	K38FJ	ALTUS OK	321.3	LIC	BLTT-20010306AAU	---	none
38	K38GL	LAWTON OK	396.1	LIC	BLTTA-20031008AAD	---	none
38	K38AM	STRONG CITY OK	326.3	LIC	BLTT-19950127JG	---	none
38	K38HM	WEATHERFORD OK	389.6	LIC	BLTT-20040813AAL	---	none
38	K38KH-D	WOODWARD, ETC. OK	392.0	CP	BDCCDTT-20061024ADK	---	none
38	K38JE	ABILENE TX	360.8	CP	BNPTTL-20000818ADP	---	none
38	K38IP	AMARILLO TX	117.0	LIC	BLTTL-20070608AAO	---	none
38	K38BU	GRUVER TX	228.9	LIC	BLTT-19880226II	---	none
38	K38HP	LUBBOCK TX	151.6	LIC	BLTTL-20060104ABK	---	none
38	K38AP	MEMPHIS, ETC. TX	207.7	LIC	BLTT-19830503IQ	---	none
38	KOCV-TV	ODESSA TX	305.8	LIC	BPRM-20011221ABZ	---	none

Table 1

**Interference Analysis Results Summary**

(page 2 of 2)

**Chesapeake RF Consultants, LLC**Radiofrequency Consulting Engineers  
Digital Television and Radio

Ch.	Call	City/State	Dist (km)	Status	Application Ref. No.	---Population (1990 Census)---	
						Baseline	New Interference
38	K38KX	WICHITA FALLS TX	396.0	CP	BNPTTL-20000810AAD	---	none
39	K46HM	LOVINGTON NM	186.4	CP	BDISDTT-20070816ABC	---	none
39	K46HM	LOVINGTON NM	186.4	APP	BDISDTT-20060314ABK	---	none
39	K57BR	MONTOYA & NEWKIRK NM	123.7	CP	BDISDTA-20060717ABG	---	none
39	NEW	AMARILLO TX	116.4	APP	BNPTTL-20000829ASO	---	none
39	NEW	AMARILLO TX	117.1	APP	BNPTTL-20000828AZF	---	none
39	NEW	AMARILLO TX	105.4	APP	BNPTTL-20000831EKW	---	none
39	K39HF	AMARILLO TX	140.2	LIC	BLTTL-20070611AFX	---	none
39	NEW	AMARILLO TX	117.0	APP	BNPTTL-20000828APP	---	none
39	KTXT-TV	LUBBOCK TX	143.4	LIC	BLEDT-20031124AOZ	---	none
39	KTXT-TV	LUBBOCK TX	143.4	CP	BPEDT-20080619AFE	---	none
40	K40GC	DORA NM	96.2	LIC	BLTT-20031107AET	---	none
40	K40DK	TUCUMCARI NM	97.3	LIC	BLTT-19920413JG	---	none
40	KDAX-LP	AMARILLO TX	117.1	CP	BDISTTL-20070712AAN	---	none
41	KFCL-LP	CLOVIS NM	35.1	LIC	BLTTL-20051222AEY	---	none
41	KEYU-LP	AMARILLO TX	127.0	LIC	BLTTL-20040923ACX	---	none
41	K41CA	KRESS & TULIA TX	103.4	LIC	BLTTL-20040419ABD	---	none
42	K42CR	TUCUMCARI NM	97.3	LIC	BLTT-19891204IA	---	none
42	K42II	HEREFORD TX	50.0	CP	BNPTTL-20000830BLO	---	none
42	NEW	LITTLEFIELD TX	84.2	APP	BNPTT-20000831BXD	---	none
45	K45BF	CLOVIS NM	35.4	LIC	BLTT-19970616JB	---	none
45	K45KR	AMARILLO TX	117.0	CP	BNPTTL-20000830BRV	---	none
45	K45IQ	AMARILLO TX	140.2	LIC	BLTTL-20070730AKW	---	none
45	K45KI	PLAINVIEW TX	99.3	CP	BNPTTL-20000818ADK	---	none
46	K46IN	PORTALES NM	85.0	LIC	BLTT-20060412ACQ	---	none
46	K46IN	PORTALES NM	50.4	CP	BPTT-20060828ADW	---	none
46	K46BU	TUCUMCARI NM	97.3	LIC	BLTT-19890713IG	---	none
46	K46HQ	AMARILLO TX	122.4	LIC	BLTTL-20070131ABZ	---	none
46	KZBZ-LP	CANYON TX	95.9	CP	BNPTTL-20000830BLJ	---	none

SECTION III - ENGINEERING DATA (Digital)																																																																																																												
TECHNICAL SPECIFICATIONS																																																																																																												
Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.																																																																																																												
TECH BOX																																																																																																												
1.	Channel Number: 38																																																																																																											
2.	Translator Input Channel No. :																																																																																																											
3.	Primary station proposed to be rebroadcast: <table border="1"><tr><td>Facility Identifier</td><td>Call Sign</td><td>City</td><td>State</td><td>Channel</td></tr></table>												Facility Identifier	Call Sign	City	State	Channel																																																																																											
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4.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 34 Minutes 35 Seconds 13 <input checked="" type="radio"/> North <input type="radio"/> South  Longitude: Degrees 102 Minutes 52 Seconds 04 <input checked="" type="radio"/> West <input type="radio"/> East																																																																																																											
5.	Antenna Structure Registration Number: 1050831 <input type="checkbox"/> Not Applicable [Exhibit 10] <input type="checkbox"/> Notification filed with FAA																																																																																																											
6.	Antenna Location Site Elevation Above Mean Sea Level: 1283. meters																																																																																																											
7.	Overall Tower Height Above Ground Level: 96 meters																																																																																																											
8.	Height of Radiation Center Above Ground Level: 92 meters																																																																																																											
9.	Maximum Effective Radiated Power (ERP): 0.39 kW																																																																																																											
10.	Transmitter Output Power: 0.05 kW																																																																																																											
11.	<p>a. Transmitting Antenna: Before selecting Directional "Off-the-shelf", refer to "Search for Antenna Information" under <a href="http://fjallfoss.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm">CDBS Public Access</a> (http://fjallfoss.fcc.gov/prod/cdbs/pubacc/prod/cdbs_pa.htm). Make sure that the Standard Pattern is marked Yes and that the relative field values shown match your values. Enter the Manufacturer (Make) and Model exactly as displayed in the Antenna Search. <input checked="" type="radio"/> Nondirectional <input type="radio"/> Directional "Off-the-shelf" <input type="radio"/> Directional composite  Manufacturer SCA Model SL-8</p> <p>b. Electrical Beam Tilt: 1.75 degrees <input type="checkbox"/> Not Applicable</p> <p>c. Directional Antenna Relative Field Values: <input checked="" type="checkbox"/> N/A (Nondirectional or Directional "Off-the-shelf") Rotation (Degrees): <input type="checkbox"/> No Rotation</p> <table border="1"><thead><tr><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th><th>Degrees</th><th>Value</th></tr></thead><tbody><tr><td>0</td><td></td><td>10</td><td></td><td>20</td><td></td><td>30</td><td></td><td>40</td><td></td><td>50</td><td></td></tr><tr><td>60</td><td></td><td>70</td><td></td><td>80</td><td></td><td>90</td><td></td><td>100</td><td></td><td>110</td><td></td></tr><tr><td>120</td><td></td><td>130</td><td></td><td>140</td><td></td><td>150</td><td></td><td>160</td><td></td><td>170</td><td></td></tr><tr><td>180</td><td></td><td>190</td><td></td><td>200</td><td></td><td>210</td><td></td><td>220</td><td></td><td>230</td><td></td></tr><tr><td>240</td><td></td><td>250</td><td></td><td>260</td><td></td><td>270</td><td></td><td>280</td><td></td><td>290</td><td></td></tr><tr><td>300</td><td></td><td>310</td><td></td><td>320</td><td></td><td>330</td><td></td><td>340</td><td></td><td>350</td><td></td></tr><tr><td colspan="2">Additional Azimuths</td><td colspan="10"></td></tr></tbody></table>												Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	0		10		20		30		40		50		60		70		80		90		100		110		120		130		140		150		160		170		180		190		200		210		220		230		240		250		260		270		280		290		300		310		320		330		340		350		Additional Azimuths											
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[Relative Field Polar Plot](#)

NOTE: In addition to the information called for in this section, an explanatory exhibit providing full particulars must be submitted for each question for which a "No" response is provided.	
12.	Out-of-channel Emission Mask: <input checked="" type="radio"/> Simple <input type="radio"/> Stringent
CERTIFICATION	
13.	<p><b>Interference</b> : The proposed facility complies with all of the following applicable rule sections. 47.C.F.R Sections 74.709, 74.793(e), 74.793(f), 74.793(g), 74.793(h), 74.794(b) and 73.1030.</p> <p style="text-align: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 11]</p>
14.	<p><b>Environmental Protection Act.</b> The proposed facility is excluded from environmental processing under 47. C.F.R. Section 1.1306 (i.e., The facility will not have a significant environmental impact and complies with the maximum permissible radiofrequency electromagnetic exposure limits for controlled and uncontrolled environments). Unless the applicant can determine RF compliance, an <b>Exhibit is required.</b></p> <p>By checking "Yes" above, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines.</p> <p style="text-align: right;"><input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 12]</p>
15.	<p><b>Channels 52-59.</b> If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable:</p> <p><input type="checkbox"/> The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.</p> <p><input type="checkbox"/> Pursuant to Section 74.786(d), the applicant has notified, within 30 days of filing this application, all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic</p>

	boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.
16.	<b>Channels 60-69.</b> If the proposed channel is within channels 60-69, the applicant certifies compliance with the following requirements, as applicable:  <input type="checkbox"/> Pursuant to Section 74.786(e), the applicant has notified, within 30 days of filing this application , all commercial wireless licenses of the spectrum comprising the proposed TV channel and the first adjacent channels thereto, for which the proposed digital LPTV or TV translator antenna site lies inside the licensed geographic boundaries of the wireless licensees or within 75 miles and 50 miles, respectively, of the geographic boundaries of co-channel and adjacent-channel wireless licensees.  <input type="checkbox"/> Pursuant to Section 74.786(e), the applicant proposing operation on channel 63, 64, 68 and 69 ("public safety channels") has secured a coordinated spectrum use agreements(s) with 700 MHz public safety regional planning committee(s) and state administrator(s) of the region(s) and state(s) within which the antenna site of the digital LPTV or TV translator station is proposed to locate, and those adjoining regions and states with boundaries within 75 miles of the proposed station location.  <input type="checkbox"/> Pursuant to Section 74.786(e), the applicant for a channel adjacent to channel 63, 64, 68 or 69 has notified, within 30 days of filing this application, the 700 MHz public safety regional planning committee(s) and state administrator(s) of the region and state containing the proposed digital LPTV or TV translator antenna site and regions and states whose geographic boundaries lie within 50 miles of the proposed LPTV or TV translator antenna site.
<b>PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.</b>	

### SECTION III PREPARER'S CERTIFICATION

I certify that I have prepared Section III (Engineering Data) on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name JOSEPH M. DAVIS, P.E.		Relationship to Applicant (e.g., Consulting Engineer) CONSULTING ENGINEER	
Signature		Date 9/29/2008	
Mailing Address CHESAPEAKE RF CONSULTANTS, LLC 11993 KAHNS ROAD			
City MANASSAS		State or Country (if foreign address) VA	Zip Code 20112 -
Telephone Number (include area code) 7036509600		E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM	