

ENGINEERING EXHIBIT

Application for Television Translator Digital Companion Construction Permit

prepared for

Broadcasting Licenses, L.P.

K41JB (DCC) Yreka, CA

Facility ID 198421

Ch. 32 (digital) 0.605 kW

Broadcasting Licenses, L.P. (“*BLLP*”) is the licensee of Television Translator station K41JB, analog Channel 41, Yreka, CA, Facility ID 130086 (BLTT-20050803AAV). *BLLP* herein seeks a Construction Permit for a digital companion channel (“DCC”) facility on Channel 32 to be associated with K41JB. The FCC’s CDBS electronic filing system has assigned Facility ID number 198421 to the DCC facility proposed herein.

The proposed DCC facility will operate at a site located 13.0 km from the licensed analog site and utilize a new antenna to be situated on an existing tower structure. The tower structure is associated with FCC Antenna Structure Registration number 1201550. No change to the overall structure height will occur.

The proposed facility will operate on Channel 32 with a directional antenna (ERI model AL8-OC-32) at 0.605 kW effective radiated power using a “stringent” out of channel emission mask. Figure 1 depicts the coverage contour of the proposed facility as well as that of the K41JB licensed analog Channel 41 facility. The service contour area overlap complies with the requirements for a digital companion facility.

Detailed interference study per OET Bulletin 69¹ show that the proposal complies with the Commission’s interference protection requirements toward all digital television, television translator,

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

LPTV, and Class A stations. The results, summarized in Table 1, show that no new interference will be caused to any facility requiring protection. Accordingly, the proposal complies with §74.793 regarding interference protection to digital television, low power television, television translator, and Class A television facilities.

The nearest FCC monitoring station is 451 km distant at Livermore, CA. 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 authorized nondirectional AM stations within 0.5 km and no authorized directional AM stations within 3.0 km of the site. The site is beyond the border areas requiring international coordination.

Human Exposure to Radiofrequency Electromagnetic Field

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the FCC’s OET Bulletin Number 65. Based on OET-65 equation (10), and considering 20 percent 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 $3.2 \mu\text{W}/\text{cm}^2$, which is 0.8 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.

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.

This exhibit is limited to the evaluation of exposure to RF electromagnetic field. The proposed facility involves installation of a new transmitting antenna to be situated on an antenna support structure which was constructed prior to March 16, 2001. No change in structure height is proposed.

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.
November 28, 2014

Chesapeake RF Consultants, LLC
207 Old Dominion Road
Yorktown, VA 23692
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 November 28, 2014 for filing electronically. Since the FCC's electronic filing system may be accessed by anyone with the applicant's account number 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
K41JB (DCC) Yreka, CA
Facility ID 198421
Ch. 32 (digital) 0.605 kW

prepared for
Broadcasting Licenses, L.P.

November, 2014

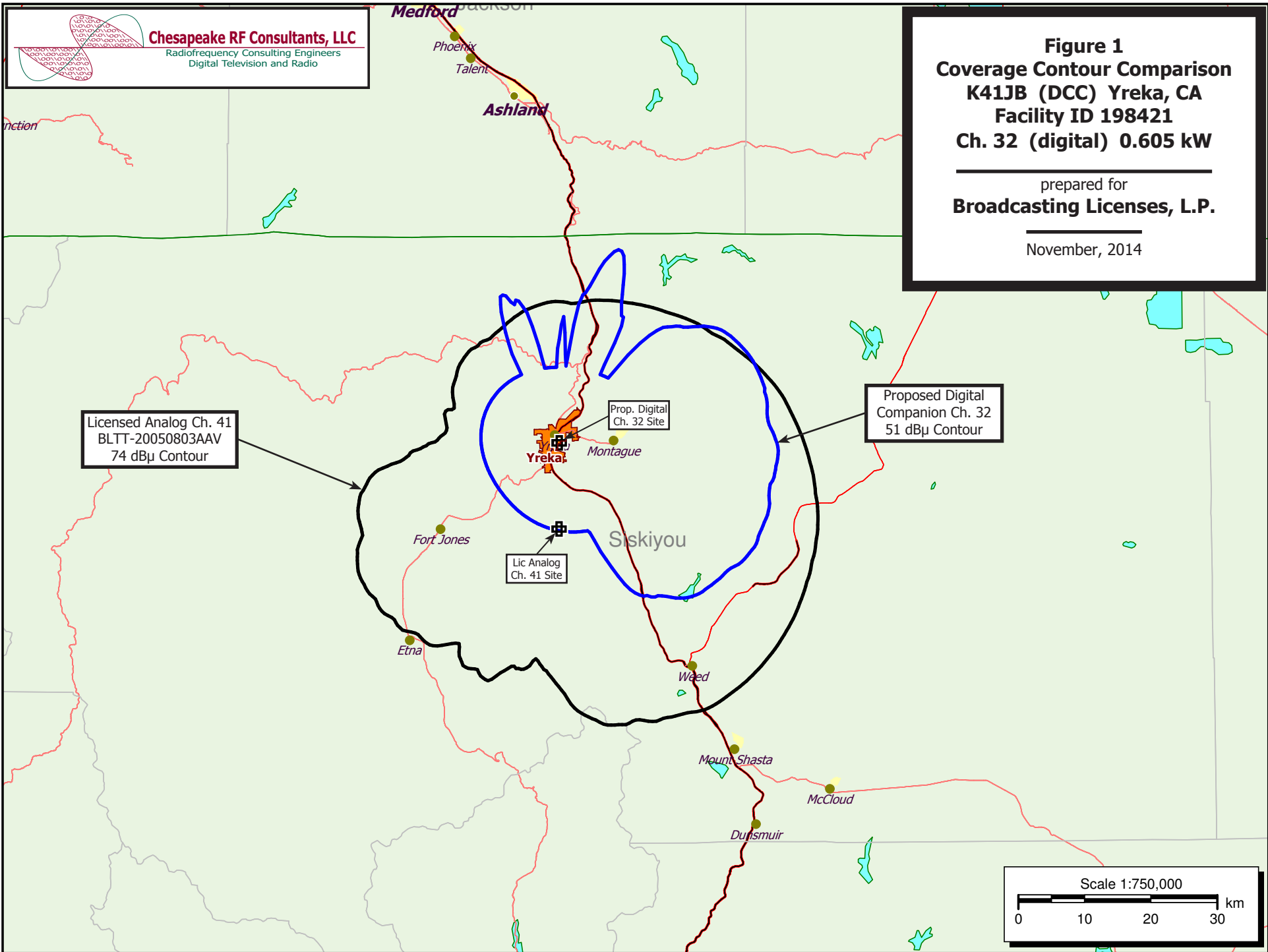
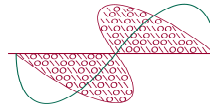


Table 1

Interference Analysis Results Summary

prepared for

Broadcasting Licenses, L.P.**K41JB (DCC Ch. 32) Yreka, CA****Chesapeake RF Consultants, LLC**Radiofrequency Consulting Engineers
Digital Television and Radio

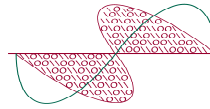
NEW-LD	USERRECORD-01	YREKA	CA US
Channel 32	ERP 0.605 kW	HAAT 84. m	RCAMSL 00998 m
STRINGENT MASK			
Latitude 041-43-31		Longitude 0122-37-32	
Dir Antenna Make usr		Model AL8-OC	Beam tilt N Ref Azimuth 120.

Ch.	Call	City/State	Dist	Status	Application Ref. No.	---Population (2000 Census)----	
			(km)			Baseline	New Interference
25	K25CI	KLAMATH CA	108.8	LIC	BLTTL-19890623ID	---	none
31	KEUV-LP	EUREKA CA	158.2	CP	BDFCDTL-20110404AEZ	---	none
31	KEUV-LP	EUREKA CA	158.2	LIC	BLTTL-20050729AMX	---	none
31	NEW	REDDING CA	125.5	APP	BNPDTL-20090825ATG	---	none
31	NEW	REDDING CA	119.4	APP	BNPDTL-20090825BPH	---	none
31	K31GP	BROOKINGS, ETC. OR	141.7	LIC	BLTT-20051214ACA	---	none
31	K31KZ-D	LAKEVIEW OR	195.0	LIC	BLDTL-20120604AEA	---	none
31	K31AE-D	SUTHERLIN OR	186.5	LIC	BLDTT-20121203BGY	---	none
32	K32LM-D	REDDING CA	169.1	CP	BDCCDTT-20130322AIG	---	none
32	KSTV-LP	SACRAMENTO CA	365.8	LIC	BLTTL-20070716ADI	---	none
32	KEMO-TV	SANTA ROSA CA	339.7	CP MOD	BMPCDT-20120504ADE +	---	none
32	KEMO-TV	SANTA ROSA CA	339.7	LIC	BLCDDT-20090612AGW	---	none
32	KEMO-TV	SANTA ROSA CA	339.7	CP	BPCDDT-20110824ABH	---	none
32	K32GW-D	CARSON CITY NV	368.9	LIC	BLDTT-20070529ADO	---	none
32	K32LD-D	LOVELOCK NV	372.9	CP	BNPDTL-20100512AHA	---	none
32	K32KQ-D	OROVADA NV	380.7	LIC	BLDTT-20120321ADT	---	none
32	K32JY-D	: EUGENE OR	259.7	CP	BNPDTL-20090825BHV	---	none
32	K32KP-D	BLACK BUTTE RANCH OR	301.6	LIC	BLDTT-20120606AAB	---	none
32	K32HF-D	FLORENCE OR	274.7	LIC	BLDTT-20100119ADV	---	none
32	K32JR-D	GRANTS PASS OR	114.8	CP	BNPDTL-20090825BGO	---	none
32	K32DY-CD	MEDFORD OR	64.5	LIC	BLDTA-20110926AHK	---	none
32	K32CC	MONTGOMERY RANCH,ETC OR	255.7	CP	BDFCDTL-20100326ACI	---	none
32	K32CC	MONTGOMERY RANCH,ETC OR	255.7	LIC	BLTT-19881013IC	---	none
32	KOPB-TV	NEWBERG OR	404.4	LIC	BLEDT-20130703AAD	---	none
32	K32JL-D	POWERS OR	178.2	LIC	BLDTT-20121203AHO	---	none
32	K32FI-D	YONCALLA OR	220.2	LIC	BLDTL-20110228AFN	---	none
33	K33DI	EAST WEED CA	39.4	LIC	BLTTL-19910206JJ	---	none
33	KEMY-LP	EUREKA CA	158.2	CP	BDFCDTL-20110404AEY	---	none
33	KEMY-LP	EUREKA CA	158.2	LIC	BLTTL-20050729AMZ	---	none
33	K33HH	REDDING CA	119.4	LIC	BLTTL-20030507AAC	---	none
33	K33CP	GOLD BEACH OR	167.7	CP	BDFCDTT-20141014AAG	---	none

Table 1

Interference Analysis Results Summary

(page 2 of 2)



Chesapeake RF Consultants, LLC

Radiofrequency Consulting Engineers
Digital Television and Radio

<u>Ch.</u>	<u>Call</u>	<u>City/State</u>	<u>Dist</u>	<u>Status</u>	<u>Application Ref. No.</u>	<u>---Population (2000 Census)---</u>	
			<u>(km)</u>			<u>Baseline</u>	<u>New Interference</u>
33	K33CP	GOLD BEACH OR	167.7	LIC	BLTT-19900329JJ	---	none
33	KFTS	KLAMATH FALLS OR	91.9	LIC	BLEDT-20060202AHF	---	none
33	K33GJ-D	MERLIN OR	114.7	LIC	BLDTL-20110527ALR	---	none
33	K33LZ-D	MYRTLE POINT OR	204.4	LIC	BLDTT-20120613AAS	---	none
34	K34BW	WILLOW CREEK CA	122.2	LIC	BLTTL-19890109IE	---	none
34	K34DJ	PHOENIX, ETC. OR	64.5	LIC	BLTT-19920408IC	---	none
36	K36HL	GRANTS PASS OR	93.6	LIC	BLTT-20051110AED	---	none

Section III - Engineering (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: 32																																																																																																										
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><tr><td>32958</td><td>KMVU-DT</td><td>MEDFORD</td><td>OR</td><td>26</td></tr></table>											Facility Identifier	Call Sign	City	State	Channel	32958	KMVU-DT	MEDFORD	OR	26																																																																																						
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4.	Antenna Location Coordinates: (NAD 27) Latitude: Degrees 41 Minutes 43 Seconds 31 <input checked="" type="radio"/> North <input type="radio"/> South Longitude: Degrees 122 Minutes 37 Seconds 32 <input checked="" type="radio"/> West <input type="radio"/> East																																																																																																										
5.	Antenna Structure Registration Number: 1201550 <input type="checkbox"/> Not Applicable [Exhibit 10] <input type="checkbox"/> Notification filed with FAA																																																																																																										
6.	Antenna Location Site Elevation Above Mean Sea Level: 979.6 meters																																																																																																										
7.	Overall Tower Height Above Ground Level: 20.7 meters																																																																																																										
8.	Height of Radiation Center Above Ground Level: 18.0 meters																																																																																																										
9.	Maximum Effective Radiated Power (ERP): 0.605 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 CDBS Public Access (http://licensing.fcc.gov/prod/cdbforms/pubacc/prod/cdb_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.</p> <p><input type="radio"/> Nondirectional <input type="radio"/> Directional Off-the Shelf <input checked="" type="radio"/> Directional composite</p> <p>Manufacturer ERI Model AL8-OC-32</p> <p>b. Electrical Beam Tilt: 1.75 degrees <input type="checkbox"/> Not Applicable</p> <p>c. Mechanical Beam Tilt: degrees toward azimuth degrees True <input checked="" type="checkbox"/> Not Applicable</p> <p>d. Directional Antenna Relative Field Values: <input type="checkbox"/> N/A (Nondirectional or Off-the-Shelf) Rotation (Degrees): <input checked="" 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>0.641</td><td>10</td><td>0.645</td><td>20</td><td>0.663</td><td>30</td><td>0.694</td><td>40</td><td>0.734</td><td>50</td><td>0.781</td></tr><tr><td>60</td><td>0.829</td><td>70</td><td>0.876</td><td>80</td><td>0.918</td><td>90</td><td>0.953</td><td>100</td><td>0.979</td><td>110</td><td>0.995</td></tr><tr><td>120</td><td>1.0</td><td>130</td><td>0.995</td><td>140</td><td>0.979</td><td>150</td><td>0.953</td><td>160</td><td>0.918</td><td>170</td><td>0.876</td></tr><tr><td>180</td><td>0.829</td><td>190</td><td>0.781</td><td>200</td><td>0.734</td><td>210</td><td>0.694</td><td>220</td><td>0.663</td><td>230</td><td>0.645</td></tr><tr><td>240</td><td>0.641</td><td>250</td><td>0.647</td><td>260</td><td>0.661</td><td>270</td><td>0.679</td><td>280</td><td>0.694</td><td>290</td><td>0.705</td></tr><tr><td>300</td><td>0.709</td><td>310</td><td>0.705</td><td>320</td><td>0.694</td><td>330</td><td>0.678</td><td>340</td><td>0.661</td><td>350</td><td>0.647</td></tr><tr><td>Additional Azimuths</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></tbody></table> <p>e. Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt? <input type="radio"/> Yes <input checked="" type="radio"/> No [Exhibit 11] If Yes, attach an Exhibit (see instructions for details).</p>											Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	0	0.641	10	0.645	20	0.663	30	0.694	40	0.734	50	0.781	60	0.829	70	0.876	80	0.918	90	0.953	100	0.979	110	0.995	120	1.0	130	0.995	140	0.979	150	0.953	160	0.918	170	0.876	180	0.829	190	0.781	200	0.734	210	0.694	220	0.663	230	0.645	240	0.641	250	0.647	260	0.661	270	0.679	280	0.694	290	0.705	300	0.709	310	0.705	320	0.694	330	0.678	340	0.661	350	0.647	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 type="radio"/> Simple <input checked="" type="radio"/> Stringent <input type="radio"/> Full Service																																																																																																										
CERTIFICATION																																																																																																											
13.	Interference : 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. <input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 12]																																																																																																										

14.	Environmental Protection Act. 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 Exhibit is required. 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.	<input checked="" type="radio"/> Yes <input type="radio"/> No See Explanation in [Exhibit 13]
15.	Channels 52-59. If the proposed channel is within channels 52-59, the applicant certifies compliance with the following requirements, as applicable: <input type="checkbox"/> The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available. <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 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.	Channels 60-69. 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.	
PREPARERS CERTIFICATION ON PAGE 3 MUST BE COMPLETED AND SIGNED.		

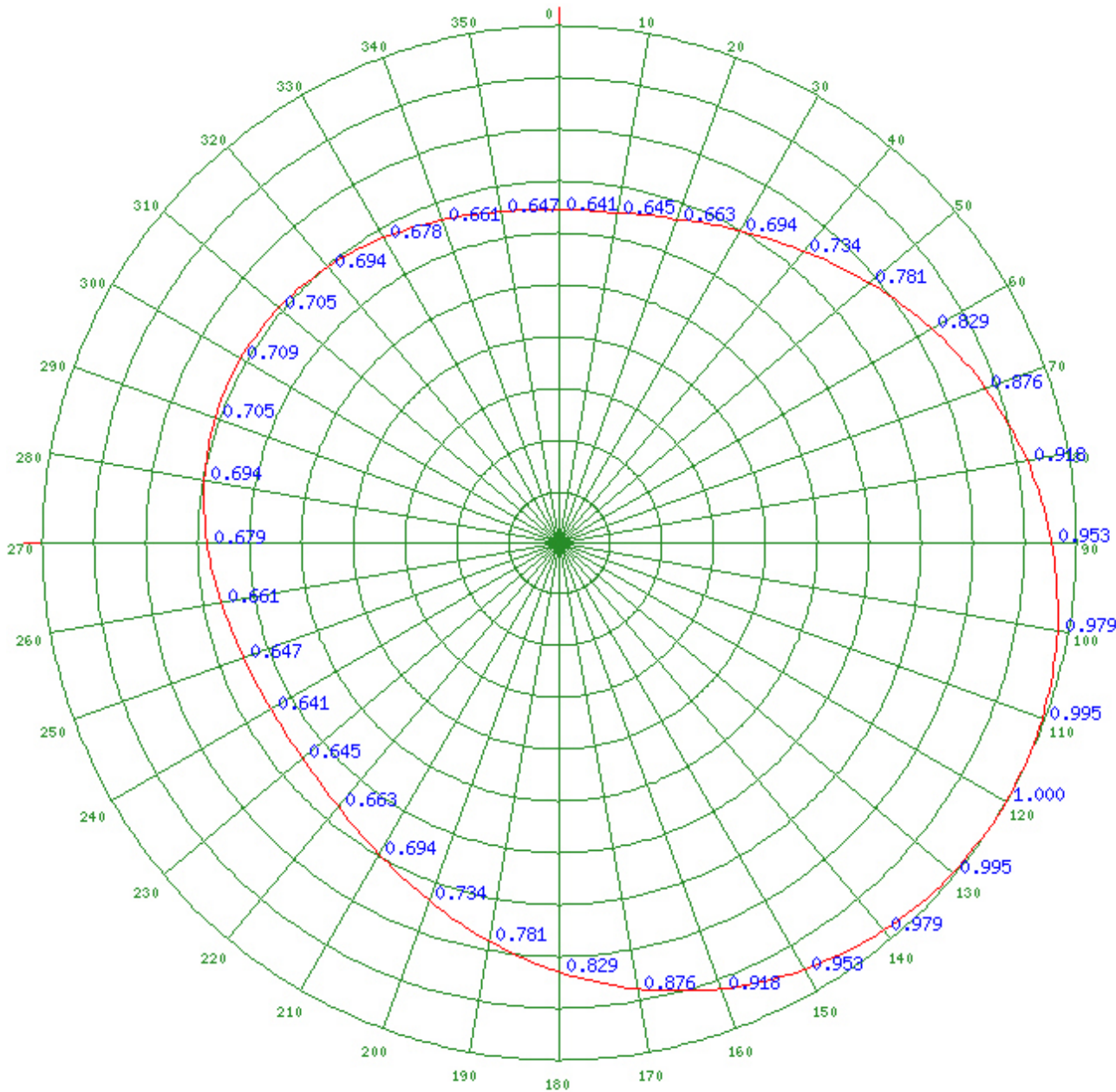
SECTION III PREPARER'S CERTIFICATION

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 11/28/2014	
Mailing Address CHESAPEAKE RF CONSULTANTS LLC 207 OLD DOMINION ROAD			
City YORKTOWN	State or Country (if foreign address) VA		Zip Code 23692 -
Telephone Number (include area code) 7036509600	E-Mail Address (if available) JOSEPH.DAVIS@RF-CONSULTANTS.COM		

Any specified rotation has already been applied to the plotted pattern.
 Field strength values shown on a rotated pattern may differ from the listed values
 because intermediate azimuths are interpolated between entered azimuths.

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