ENGINEERING EXHIBIT

Application for Low Power Television Station
Digital Flashcut Construction Permit

prepared for

Broadcasting Licenses, Limited Partnership
K41ID Klamath Falls, OR
Facility ID 129027
Ch. 41 (digital) 0.87 kW

Broadcasting Licenses, Limited Partnership ("BLLP") is the licensee of Low Power Television station K41ID, analog Channel 41, Facility ID 129027, Klamath Falls, OR (BLTTL-20060831AAE). *BLLP* proposes herein to flashcut K41ID to digital operation using its presently licensed antenna.

The effective radiated power will be 0.87 kW utilizing a "simple" out of channel emission mask. Continued use of the existing K41ID analog Channel 41 antenna is proposed. The antenna system is side-mounted on the tower structure associated with FCC Antenna Structure Registration number 1213760. No change to the overall structure height is proposed.

Figure 1 depicts the 51 dBμ coverage contour of the proposed digital facility with the 74 dBμ coverage contour of the licensed analog facility. The use of the same site and corresponding service area overlap demonstrates compliance with §73.3572 for a minor change.

Interference study per OET Bulletin 69[1] shows that the proposal complies with the Commission's interference protection requirements toward all digital television, television translator, LPTV, and Class A stations. The results, summarized in Table 1, show that the proposal will not result in any predicted interference to any other station. Accordingly, the proposed digital K41ID

[1]FCC 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 correlation.

facility 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 486 km distant at Livermore, CA. This exceeds 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 AM stations within 3 kilometers of the site. The site is not within a border area requiring international coordination.

Human Exposure to Radiofrequency Electromagnetic Field

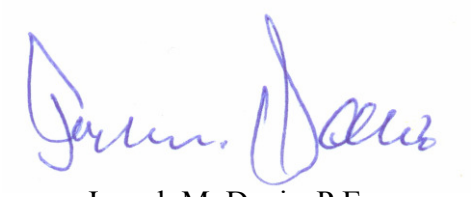
The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. Based on OET-65 equation (10), and assuming the worst-case of 100 percent relative field at downward elevations, the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 17.3 $\mu W/cm^2$, which is 4.1 percent of the general population/uncontrolled maximum permitted exposure limit. This is 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 calculated RF exposure will be much lower when the antenna's elevation pattern is considered.

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 proposal involves continued use of an existing side-mounted transmitting antenna. No change in structure height is proposed and no tower work is required to carry out this proposal.

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.
July 18, 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

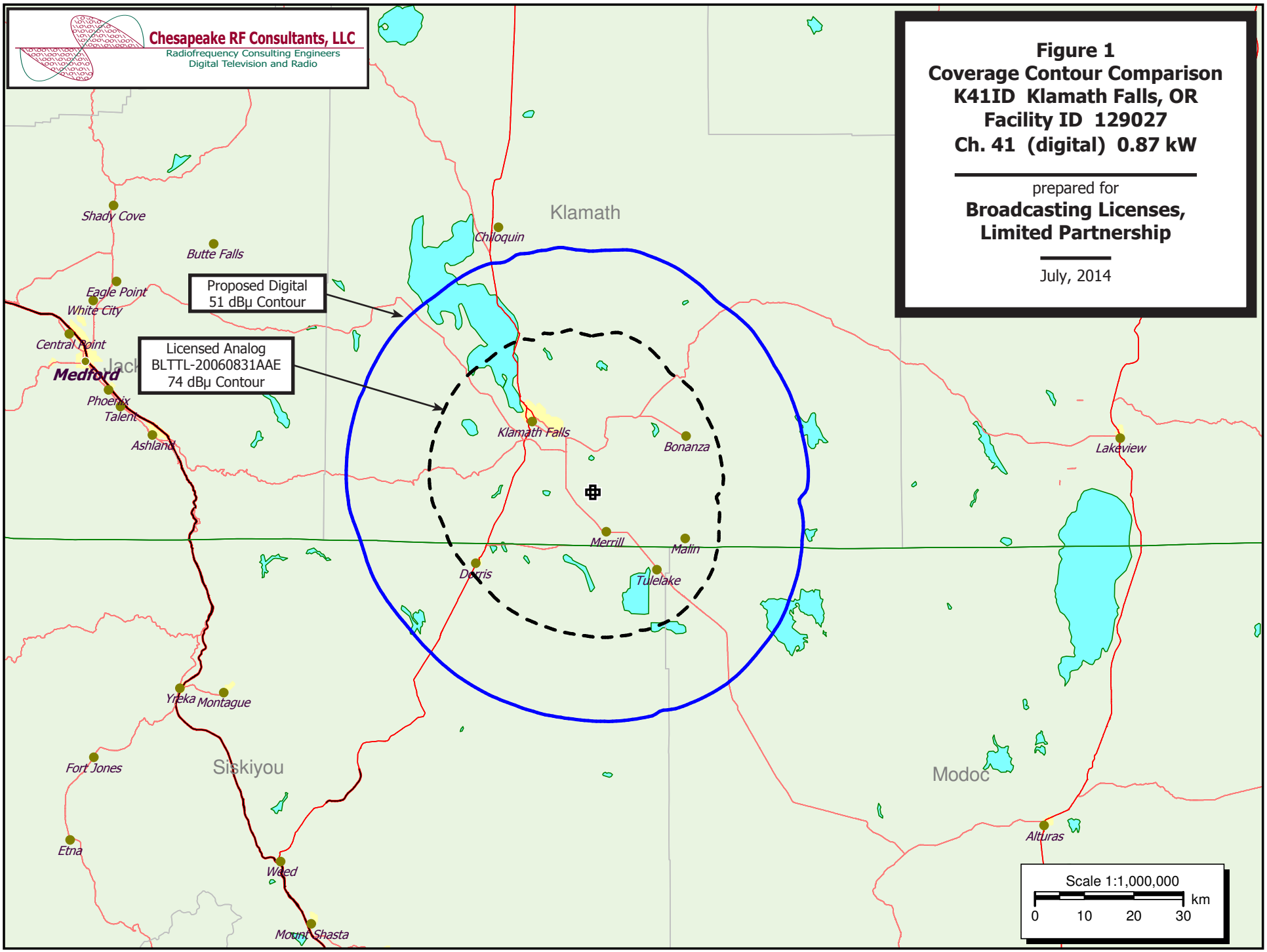

Chesapeake RF Consultants, LLC
Radiofrequency Consulting Engineers
Digital Television and Radio
Figure 1
Coverage Contour Comparison
K41ID Klamath Falls, OR
Facility ID 129027
Ch. 41 (digital) 0.87 kW
prepared for
Broadcasting Licenses, Limited Partnership
July, 2014
Proposed Digital
51 dBµ Contour
Licensed Analog
BLTTL-20060831AAE
74 dBµ Contour
Klamath
Jack
Siskiyou
Modoc
Shady Cove
Butte Falls
Eagle Point
White City
Central Point
Medford
Phoenix
Talent
Ashland
Chiloquin
Klamath Falls
Bonanza
Lakeview
Merrill
Malin
Dorris
Tulelake
Yreka
Montague
Fort Jones
Etna
Weed
Mount Shasta
Alturas
Scale 1:1,000,000
km
0
10
20
30

Table 1

Interference Analysis Results Summary

prepared for

Broadcasting Licenses, Limited Partnership

K41ID Klamath Falls, OR

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

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K41IX-D  USERRECORD-01              KLAMATH FALLS        OR US
Channel 41 ERP 0.87   kW   HAAT  669. m  RCAMSL 02004 m SIMPLE MASK
Latitude 042-05-50  Longitude 0121-37-59
Dir Antenna Make CDB  Model 00000000023503  Beam tilt N  Ref Azimuth 325.
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Ch.	Call	City/State	Dist (km)	Status	Application Ref. No.	---Population (2000 Census)---- Baseline	New Interference
27	K27BH	LAKE SHASTINA CA	90.6	LIC	BLTTL-19890516IK	---	none
33	K33DI	EAST WEED CA	98.4	LIC	BLTTL-19910206JJ	---	none
34	K34DJ	PHOENIX, ETC. OR	94.6	LIC	BLTT-19920408IC	---	none
40	K40HE-D	REDDING CA	196.5	CP MOD	BMPDTT-20100317ABS	---	none
40	K40HE-D	REDDING CA	196.5	LIC	BLDTL-20100430ACY	---	none
40	K13JF	LA PINE OR	173.4	CP	BDISDTL-20100316AAT	---	none
40	K40KR-D	MEDFORD OR	123.3	LIC	BLDTL-20140221ACL	---	none
40	NEW	ROSEBURG OR	188.3	APP	BNPDTL-20090825BHK	---	none
41	K41LQ-D	EUREKA CA	247.3	CP	BNPDTL-20091028ACF	---	none
41	KRHT-LP	REDDING CA	176.7	LIC	BLTTL-20090312ACS	---	none
41	KRHT-LP	REDDING CA	176.7	CP	BDFCDTL-20120718ACL	---	none
41	K41AF	UKIAH CA	353.4	LIC	BLTT-19830125IM	---	none
41	K41JB	YREKA CA	98.5	LIC	BLTT-20050803AAV	---	none
41	K41GI-D	IMLAY NV	331.2	LIC	BLDTT-20070403ABD	---	none
41	K41NJ-D	LOVELOCK NV	328.0	CP	BNPDTL-20100512AHC	---	none
41	KBND-LP	BEND OR	221.5	CP	BDFCDTL-20090430ABC	---	none
41	KBND-LP	BEND OR	221.5	CP MOD	BMPDTL-20090521AEQ	---	none
41	KBND-LP	BEND OR	221.5	LIC	BLTT-20041025AEO	---	none
41	K41HZ	BURNS OR	261.8	LIC	BLTT-20060526ALC	---	none
41	KORY-CA	EUGENE OR	243.6	LIC	BLTTA-20020722ABH	---	none
41	K41KL-D	GLENDALE, ETC. OR	152.8	LIC	BLDTT-20091118ACC	---	none
41	K41JQ-D	ROSEBURG OR	188.4	LIC	BLDTL-20110228AFO	---	none
41	KOXO-CA	VANCOUVER WA	403.8	APP	BSTA-20130215ABU	---	none
41	KOXO-CA	VANCOUVER WA	391.0	CP	BDISDTA-20120221ADP	---	none
42	KQSX-LP	CAL - OREGON CA	105.4	LIC	BLTTL-20090819AHE	---	none
42	K42JQ-D	REDDING CA	176.6	LIC	BLDTL-20140507ABA	---	none
42	K42JQ-D	REDDING CA	177.1	CP	BPDTL-20140623ACD	---	none
42	KSYS	JACKSONVILLE OR	94.6	LIC	BLEDT-20090929ACH	---	none
42	K42JO-D	KLAMATH FALLS OR	0.0	CP	BNPDTL-20091218AFK	---	none
42	K42LH-D	WINSTON OR	185.8	LIC	BLDTT-20121001AWX	---	none
44	K44DZ	KLAMATH FALLS OR	0.0	LIC	BLTT-20131206BAI	---	none
44	KDOV-LP	MEDFORD OR	98.9	LIC	BLTTL-20080812ABO	---	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:
41

2. Translator Input Channel No. :

3. Primary station proposed to be rebroadcast:

Facility Identifier	Call Sign	City	State	Channel

4. Antenna Location Coordinates: (NAD 27)
Latitude:
Degrees 42 Minutes 05 Seconds 50 (•) North ( ) South

Longitude:
Degrees 121 Minutes 37 Seconds 59 (•) West ( ) East

5. Antenna Structure Registration Number: 1213760
☐ Not Applicable [Exhibit 10] ☐ Notification filed with FAA

6. Antenna Location Site Elevation Above Mean Sea Level: 1961 meters

7. Overall Tower Height Above Ground Level: 49.7 meters

8. Height of Radiation Center Above Ground Level: 43 meters

9. Maximum Effective Radiated Power (ERP): 0.87 kW

10. Transmitter Output Power: 0.1 kW

11. a.Transmitting Antenna:
Before selecting Directional "Off-the-Shelf", refer to "Search for Antenna Information" under CDBS Public Access (http://licensing.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.
( ) Nondirectional (•) Directional Off-the Shelf ( ) Directional composite

Manufacturer SCA Model SL-8

b. Electrical Beam Tilt: 1.75 degrees ☐ Not Applicable

c. Mechanical Beam Tilt: degrees toward azimuth degrees True ☐ Not Applicable

d. Directional Antenna Relative Field Values: ☑ N/A (Nondirectional or Off-the-Shelf)
Rotation (Degrees): 325 ☐ No Rotation

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											

e. Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt? ( ) Yes (•) No
[Exhibit 11]

If Yes, attach an Exhibit (see instructions for details).

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:** (•) Simple ( ) Stringent ( ) 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. (•) Yes ( ) 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.	◉ Yes ○ 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:

☐ The applicant is applying for a digital companion channel for which no suitable channel from channel 2-51 is available.

☐ 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:

☐ 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.

☐ 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.

☐ 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.

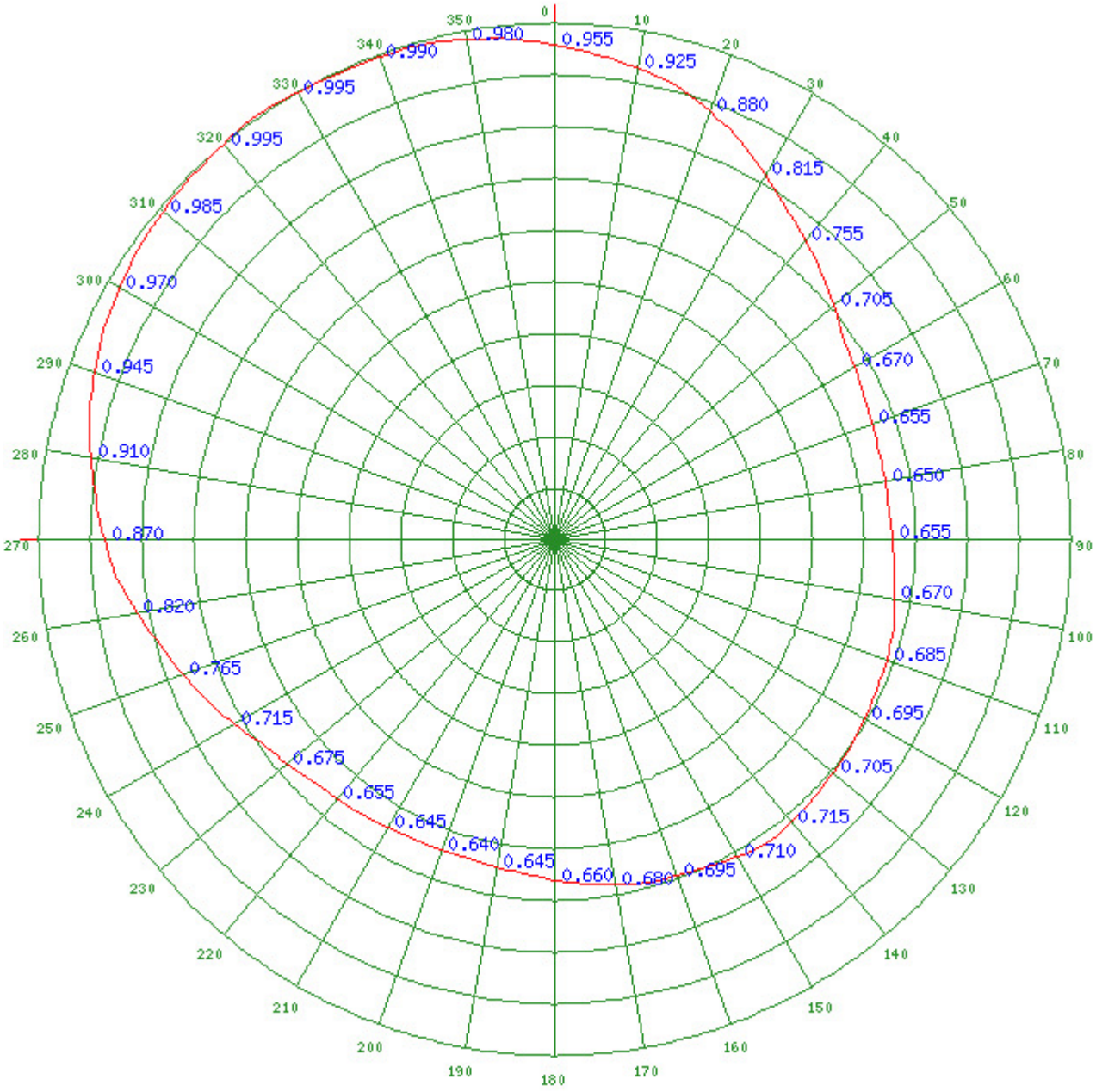
SECTION III PREPARER'S CERTIFICATION

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 7/18/2014	
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.

Close Window



FM Query FCC TV Query