

ENGINEERING EXHIBIT

Application for Modification of Digital Low Power Television Station Construction Permit

prepared for

Gray Television Licensee, LLC

WUFX-LD Tallahassee FL

Facility ID 187680

Ch. 33 15 kW

Gray Television Licensee, LLC (“Gray”) is the licensee of digital Low Power Television station WUFX-LD, Channel 38, Tallahassee FL, Facility ID 187680 (file# BLDTT-20141016ACL). As a result of the Special Displacement Window,¹ a Construction Permit (“CP” file# 0000052521) authorizes WUFX-LD to operate on Channel 33 at 15 kW effective radiated power (“ERP”) and a nondirectional antenna. *Gray* proposes herein a minor modification of the displacement CP to decrease the antenna height above ground (“AGL”), to change polarization, and to utilize a different nondirectional antenna make and model.

As with the existing displacement CP, WUFX-LD will be relocated to the tower structure associated with FCC Antenna Structure Registration number 1031203, 12.1 km (7.5 miles) from the licensed WUFX-LD site. The proposed WUFX-LD facility will employ an existing broadband antenna system which will be shared with WCTV (auxiliary facility Ch. 20, Fac ID 31590, file# 0000117665, Thomasville GA) and WVUP-CD (Ch. 30, Fac ID 3032, file# 0000120620, Tallahassee FL).

The proposed WUFX-LD facility will operate at 15 kW ERP with an elliptically-polarized nondirectional antenna centered 259.7 meters AGL and a “full service” out of channel emission mask. This represents a 3.6-meter reduction of antenna height from the presently authorized 263.3 meters AGL. The proposed antenna is an elliptically polarized Dielectric model TUM-O4-

¹“Incentive Auction Task Force and Media Bureau Announce Post-Incentive Auction Special Displacement Window April 10, 2018, through May 15, 2018, and Make Location and Channel Data Available,” Public Notice, DA 18-124, released February 9, 2018.

10/40H-1-R (42.9 percent vertical polarization). The horizontally polarized ERP is 15 kW and the vertically polarized ERP is 6.4 kW. Figure 1 depicts the 51 dB μ coverage contour of the licensed Channel 38 facility and those of the Channel 33 CP and proposed facilities, demonstrating compliance with §73.3572 for a minor change.

Interference study per OET Bulletin 69² shows that the proposal complies with the FCC's interference protection requirements toward all digital television, television translator, LPTV, and Class A stations. FCC processing of this proposal is requested using a **1.0 km cell size and 0.2 km terrain profile increment**. The results, summarized in Table 1, show that any new interference does not exceed the FCC's interference limits (0.5 percent to full power and Class A stations, and 2.0 percent to secondary stations) to any facility except with respect to W33EN-D and W33EO-D which do not present a conflict for the proposal.

The authorized W33EN-D facility (BNPDTL-20090825AHE, Ch. 33, Facility ID 181793, Madison FL) would receive 15.69 percent interference from the proposed WUFX-LD, which exceeds the 2.0 percent limit towards LPTV stations. This is a reduction in the 19.87 percent interference caused to W33EN-D by the existing WUFX-LD CP facility. The authorized W33EO-D facility (BNPDTL-20090825ALP, Ch. 33, Facility ID 182367, Tallahassee FL) would receive 68.64 percent interference from the proposed WUFX-LD, which matches the 68.64 percent interference caused to W33EO-D by the existing WUFX-LD CP facility. Table 2 supplies interference study details regarding the impact to W33EN-D and W33EO-D from the authorized and proposed WUFX-LD, showing that interference will not be increased to these facilities. The existing interference arose because the WUFX-LD displacement facility's CP application had priority over the then-pending CP applications of W33EN-D and W33EO-D. Accordingly, the proposal complies with §74.793 regarding interference protection to digital television, low power television, television translator, and Class A television facilities.

²FCC Office of Engineering and Technology Bulletin number 69, *Longley-Rice Methodology for Evaluating TV Coverage and Interference*, February 6, 2004 ("OET-69"). This analysis employed the FCC's current "TVStudy" software with the default application processing template settings, 1 km cell size, and 0.2 km terrain increment. Comparisons of various results of this computer program (run on a Mac processor) to the FCC's implementation of TVStudy show excellent correlation.

Human Exposure to Radiofrequency Electromagnetic Field (Environmental)

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 15 percent antenna relative field in downward elevations (pattern data shows less than 15 percent relative field at angles 10 – 90 degrees below the horizontal), the calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $0.24 \mu\text{W}/\text{cm}^2$, which is 0.1 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. No increase in structure height is proposed.

List of Attachments

Figure 1	Coverage Contour Comparison
Table 1	TVStudy Analysis of Proposal
Table 2	Interference Study Details Regarding W33EN-D and W33EO-D
Form 2100	Saved Version of Engineering Sections from FCC Form at Time of Upload

Chesapeake RF Consultants, LLC

Joseph M. Davis, P.E.	August 31, 2020	
207 Old Dominion Road	Yorktown, VA 23692	703-650-9600



August, 2020

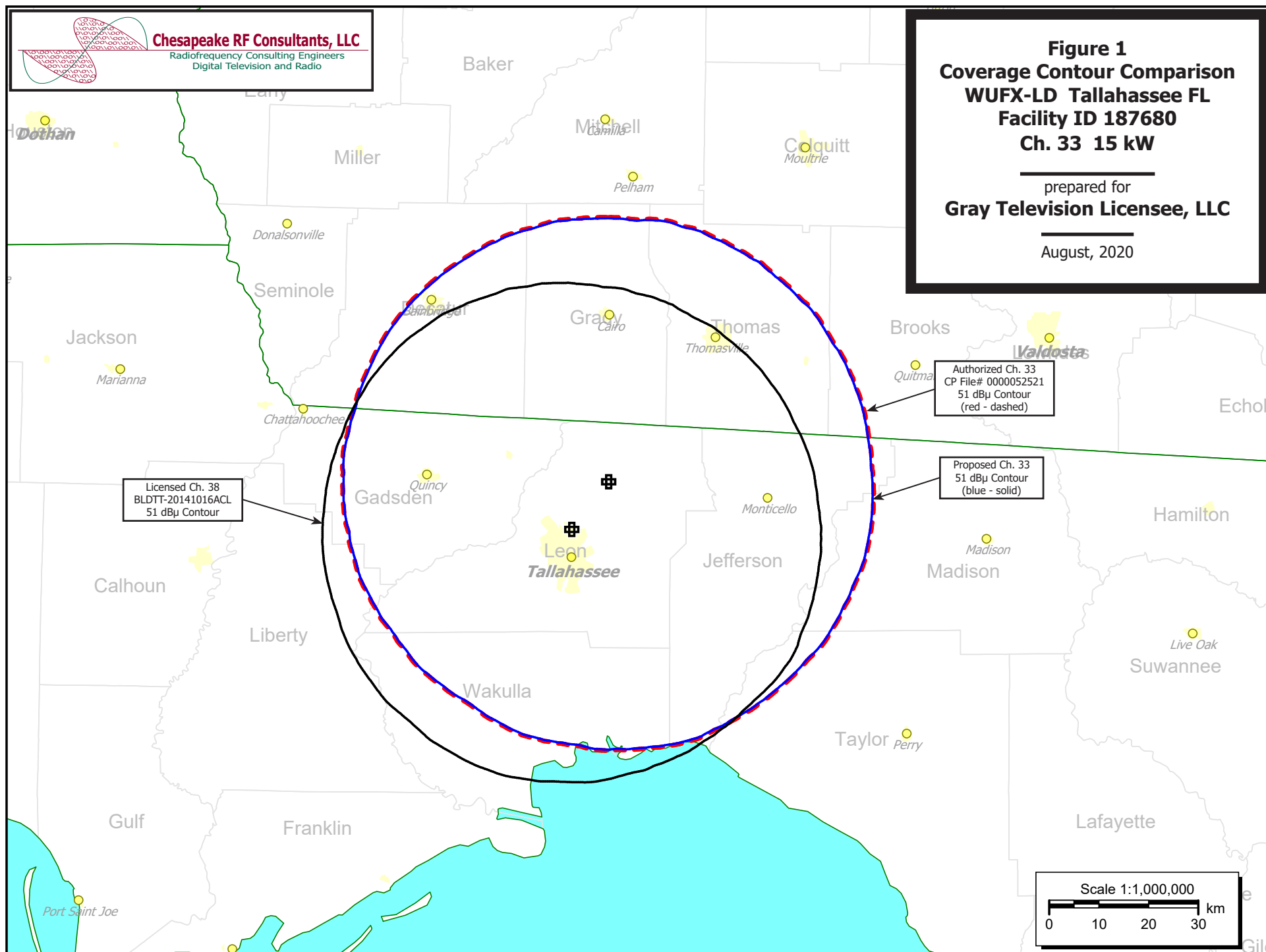


Table 1 WUFX-LD TVStudy Analysis of Proposal (page 1 of 5)



tvstudy v2.2.5 (4uoc83)
Database: localhost, Study: WUFX-LD Ch-33_TUM 1.0-0.2, Model: Longley-Rice
Start: 2020.08.31 09:25:36

Study created: 2020.08.31 09:25:36

Study build station data: LMS TV 2020-08-27

Proposal: WUFX-LD D33 LD APP TALLAHASSEE, FL
File number: WUFX-LD Ch-33 TUM
Facility ID: 187680
Station data: User record
Record ID: 3126
Country: U.S.

Build options:
Protect pre-transition records not on baseline channel

Search options:
Baseline record excluded if station has CP

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WACX-LD	D32	LD	CP	ALACHUA, ETC., FL	BLANK0000080498	188.6 km
No	WFOX-TV	D32	DT	LIC	JACKSONVILLE, FL	BLCDT20030328ANQ	254.4
No	W32ER-D	D32	LD	CP	MADISON, FL	BNPDTL20100513ALM	97.2
Yes	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	45.8
No	W32FO-D	D32	LD	CP	ALBANY, GA	BLANK0000071975	114.5
No	W32FK-D	D32	LD	CP	VALDOSTA, GA	BLANK0000071821	103.8
No	WFXH-TV	D33	DT	LIC	HOOVER, AL	BLANK0000105366	405.9
No	WMOE-LD	D33-	LD	CP	MOBILE, AL	BLANK0000053801	329.4
No	WFRZ-LD	D33	LD	LIC	MONTGOMERY, AL	BLANK0000081666	277.6
Yes	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	151.9
Yes	WDFX-TV	D33	DT	LIC	OZARK, AL	BLCDT20050915APH	151.9
No	WSES	D33	DT	LIC	TUSCALOOSA, AL	BLCDT20091106ABO	443.6
No	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	182.0
No	WXCK-LP	N33	TX	LIC	CHIEFLAND, FL	BLTTL19960415IC	182.0
No	W33DJ-D	D33	LD	CP	DESTIN, FL	BLANK0000071526	216.7
No	WUJF-LD	D33	LD	LIC	JACKSONVILLE, FL	BLDTL20130306ADL	254.4
Yes	W33EN-D	D33	LD	CP	MADISON, FL	BNPDTL20090825AHE	64.3
No	WOFL	D33	DT	CP	ORLANDO, FL	BLANK0000109733	372.4
Yes	WPCT	D33	DT	LIC	PANAMA CITY BEACH, FL	BLANK0000062892	157.4
Yes	W33EO-D	D33	LD	CP	TALLAHASSEE, FL	BNPDTL20090825ALP	12.0
No	WGCT-LD	D33	LD	LIC	Tampa, FL	BLANK0000059159	356.7
Yes	W33DK-D	D33	LD	CP	ADEL, GA	BNPDTL20100510ABL	91.5
No	WIRE-CD	D33	DC	LIC	ATLANTA, GA	BLANK0000098761	352.7
No	WMEL-LD	D33	LD	CP	AUGUSTA, GA	BLANK0000074331	358.6
No	W33DU-D	D33	LD	CP	COLUMBUS, GA	BLANK0000013297	202.0
No	WJCN-LD	D33	LD	LIC	LAGRANGE, GA	BLDTL20130411AAA	286.1
No	WGNM	D33	DT	LIC	MACON, GA	BLANK0000113679	250.9
No	WDID-LD	D33	LD	LIC	SAVANNAH, GA	BLANK0000106516	321.8
No	W33DY-D	D33	LD	CP	SOPERTON, GA	BNPDTL20100510AHG	265.1
No	W32EM-D	D33	LD	CP	LUMBERTON, MS	BLANK0000090720	416.7
No	W34EU-D	D34	LD	CP	MIDLAND CITY, AL	BNPDTL20100510ALL	151.5
No	W34EC-D	D34	LD	CP	CHATTAHOOCHEE, FL	BNPDTL20090825AGO	66.1
No	W40BU	D34-	LD	CP	PANAMA CITY, FL	BLANK0000054799	145.1
Yes	W34FQ-D	D34	LD	CP	TALLAHASSEE, FL	BLANK0000071976	12.0
No	W34FS-D	D34z	LD	CP	COLUMBUS, GA	BLANK0000116354	228.6
No	WSST-TV	D34	DT	LIC	CORDELE, GA	BLANK0000064103	151.4
No	W34EJ-D	D34	LD	CP	CORDELE, GA	BNPDTL20100510AAY	156.9
No	W40BU	N40-	TX	LIC	PANAMA CITY, FL	BLTTL20060410AAW	145.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D33
Mask: Full Service
Latitude: 30 34 28.00 N (NAD83)
Longitude: 84 12 9.00 W

Table 1 WUFX-LD TVStudy Analysis of Proposal
(page 2 of 5)



Height AMSL: 303.7 m
HAAT: 0.0 m
Peak ERP: 15.0 kW
Antenna: Omnidirectional
Elev Pattn: Generic
Elec Tilt: 0.50

50.6 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	15.0 kW	254.1 m	53.3 km
45.0	15.0	256.7	53.5
90.0	15.0	252.7	53.2
135.0	15.0	263.5	53.9
180.0	15.0	268.3	54.1
225.0	15.0	258.2	53.6
270.0	15.0	259.7	53.6
315.0	15.0	264.1	53.9

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m Computed HAAT: 260 m

Distance to Canadian border: 1241.5 km

Distance to Mexican border: 1345.0 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 352.5 degrees Distance: 368.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 304.9 degrees Distance: 2173.3 km

Study cell size: 1.00 km
Profile point spacing: 0.20 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLEDT20030730ACW LIC scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance		
	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW			
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	45.8 km		
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	134.5		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
25382.8		575,093		25361.8		574,876	0.80 0.35		
				25361.8		574,876			
				25159.1		572,867			
Undesired				Total IX	Unique IX, before	Unique IX, after			
WUFX-LD D33 LD APP				202.7	2,009	202.7 2,009			

Interference to BLANK0000035653 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance		
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653			
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	151.9 km		
	WPCT	D33	DT	LIC	PANAMA CITY BEACH, FL	BLANK0000062892	115.2		
	WGNM	D33	DT	LIC	MACON, GA	BLANK0000113679	259.7		
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX		
14539.9		356,655		14405.3		355,866	0.23 0.07		
				14309.5		354,966			
				14277.0		354,725			
Undesired				Total IX	Unique IX, before	Unique IX, after			
WUFX-LD D33 LD APP				42.7	319	32.5 241			
WPCT D33 DT LIC				72.5	696	57.3 608			
WGNM D33 DT LIC				35.5	292	22.3 204			

Table 1 WUFX-LD TVStudy Analysis of Proposal
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Interference to BLCDT20050915APH LIC scenario 1

Desired:	Call WDFX-TV	Chan D33	Svc DT	Status LIC	City, State OZARK, AL	File Number BLCDT20050915APH	Distance		
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	151.9 km		
	WPCT	D33	DT	LIC	PANAMA CITY BEACH, FL	BLANK0000062892	115.2		
	WGNM	D33	DT	LIC	MACON, GA	BLANK0000113679	259.7		
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX	
8933.5	271,404	8836.1	270,138		8780.3	269,926	8754.9	268,786	0.29 0.42
Undesired				Total IX		Unique IX, before		Unique IX, after	
WUFX-LD	D33	LD	APP	33.5	1,218		25.4	1,140	
WPCT	D33	DT	LIC	44.6	118		33.5	85	28.4 53
WGNM	D33	DT	LIC	22.3	127		11.2	94	9.1 48

Interference to BNPDTL20090825AHE CP scenario 1

**IX: 15.69% interference caused

See text and Table 2: interference to W33EN-D is decreased

Desired:	Call W33EN-D	Chan D33	Svc LD	Status CP	City, State MADISON, FL	File Number BNPDTL20090825AHE	Distance
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	64.3 km
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	215.0
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	128.1
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1447.5	14,235	1447.5	14,235	1447.5	14,235	1085.5	12,001
							25.01 15.69
Undesired				Total IX	Unique IX, before	Unique IX, after	
WUFX-LD D33 LD APP		362.0		2,234		362.0	2,234

Interference to BLANK0000062892 LIC scenario 1

Desired:	Call WPCT	Chan D33	Svc DT	Status LIC	City, State PANAMA CITY BEACH, FL	File Number BLANK0000062892	Distance			
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	157.4 km			
	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	114.0			
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	115.2			
Service area		Terrain-limited			IX-free, before	IX-free, after	Percent New IX			
7952.8	195,217	7920.9	194,775		7786.1	193,516	7780.1	193,516	0.08	0.00
Undesired				Total IX		Unique IX, before		Unique IX, after		
WUFX-LD	D33	LD	APP	12.0	11	6.0	0			
WFSU-TV	D32	DT	LIC	4.0	11	3.0	11	0.0	0	
WDFX-TV	D33	DT	CP	131.8	1,248	130.8	1,248	128.8	1,248	

Interference to BLANK0000062892 LIC scenario 2

Desired:	Call WPCT	Chan D33	Svc DT	Status LIC	City, State PANAMA CITY BEACH, FL	File Number BLANK0000062892	Distance		
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	157.4 km		
	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	114.0		
	WDFX-TV	D33	DT	LIC	OZARK, AL	BLCDT20050915APH	115.2		
Service area		Terrain-limited			IX-free, before		IX-free, after	Percent New IX	
7952.8	195,217	7920.9	194,775		7896.9	194,612	7890.9	194,612	0.08 0.00
Undesired				Total IX	Unique IX, before		Unique IX, after		
WUFX-LD	D33	LD	APP	12.0	11	6.0		0	
WFSU-TV	D32	DT	LIC	4.0	11	4.0	11	0.0 0	
WDFX-TV	D33	DT	LIC	20.0	152	20.0	152	18.0	152

Table 1 WUFX-LD TVStudy Analysis of Proposal
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Interference to BNPDTL20090825ALP CP scenario 1
**IX: 68.64% interference caused

See text and Table 2: interference to W33EO-D is unchanged

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W33EO-D	D33	LD	CP	TALLAHASSEE, FL	BNPDTL20090825ALP	
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	12.0 km
	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	34.6
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	149.7
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	182.1
	WPCT	D33	DT	LIC	PANAMA CITY BEACH, FL	BLANK0000062892	147.6
	W34FQ-D	D34	LD	CP	TALLAHASSEE, FL	BLANK0000071976	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1002.9		260,479		793.1		171.8	78.34
				190,561		59,768	68.64
Undesired			Total IX		Unique IX, before		Unique IX, after
WUFX-LD D33 LD APP			815.2		194,491		621.3
WFSU-TV D32 DT LIC			37.0		1,494		130,793
WDFX-TV D33 DT CP			22.0		122		1.0
WPCT D33 DT LIC			1.0		0		182
W34FQ-D D34 LD CP			177.8		68,636		0.0
					165.8		6,009

Interference to BNPDTL20090825ALP CP scenario 2
**IX: 68.64% interference caused

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W33EO-D	D33	LD	CP	TALLAHASSEE, FL	BNPDTL20090825ALP	
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	12.0 km
	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	34.6
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	182.1
	WPCT	D33	DT	LIC	PANAMA CITY BEACH, FL	BLANK0000062892	147.6
	W34FQ-D	D34	LD	CP	TALLAHASSEE, FL	BLANK0000071976	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1002.9		260,479		797.1		171.8	78.45
				190,569		59,768	68.64
Undesired			Total IX		Unique IX, before		Unique IX, after
WUFX-LD D33 LD APP			815.2		194,491		625.3
WFSU-TV D32 DT LIC			37.0		1,494		130,801
WPCT D33 DT LIC			1.0		0		2.0
W34FQ-D D34 LD CP			177.8		68,636		182
					165.8		0.0
					68,387		6,009

Interference to BNPDTL20100510ABL CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W33DK-D	D33	LD	CP	ADEL, GA	BNPDTL20100510ABL	
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	91.5 km
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	212.3
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	180.9
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1072.8		60,125		1072.8		1068.7	0.38
				60,125		60,099	0.04
Undesired			Total IX		Unique IX, before		Unique IX, after
WUFX-LD D33 LD APP			4.1		26		4.1
							26

Interference to BLANK0000071976 CP scenario 1

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W34FQ-D	D34	LD	CP	TALLAHASSEE, FL	BLANK0000071976	
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	12.0 km
	W34EC-D	D34	LD	CP	CHATTAHOOCHEE, FL	BNPDTL20090825AGO	60.0
	W34FS-D	D34z	LD	LIC	COLUMBUS, GA	BLANK0000115071	207.6
	WDDM-LD	D35	LD	CP	TALLAHASSEE, FL	BLANK0000052928	9.8

Table 1 WUFX-LD TVStudy Analysis of Proposal
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WBVJ-CD		D35+	DC	LIC	VALDOSTA, GA		BLANK0000004708		109.1	
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX		
5007.7	350,296	4996.7		350,290	4941.7	346,794	4759.1	346,182	3.69	0.18
Undesired		Total IX		Unique IX, before		Unique IX, after				
WUFX-LD	D33 LD APP	190.6		617			182.6	612		
W34EC-D	D34 LD CP	24.9		2,003	24.9	2,003	24.9	2,003		
WDDM-LD	D35 LD CP	30.0		1,493	30.0	1,493	22.0	1,488		

Interference to proposal scenario 1										
Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance			
	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM				
Undesireds:	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	45.8 km			
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	151.9			
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	182.0			
	W33EN-D	D33	LD	CP	MADISON, FL	BNPDTL20090825AHE	64.3			
	W33EO-D	D33	LD	CP	TALLAHASSEE, FL	BNPDTL20090825ALP	12.0			
Service area		Terrain-limited		IX-free		Percent IX				
9056.4	442,796	9041.1		442,796	8356.6	434,366	7.57	1.90		
Undesired		Total IX		Unique IX		Prcnt Unique IX				
WFSU-TV	D32 DT LIC	138.0		357	137.0	357	1.52	0.08		
WDFX-TV	D33 DT CP	136.7		4,253	136.7	4,253	1.51	0.96		
W33EN-D	D33 LD CP	356.8		1,804	352.8	1,764	3.90	0.40		
W33EO-D	D33 LD CP	58.0		2,056	53.0	2,016	0.59	0.46		

Interference to proposal scenario 2										
Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance			
	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM				
Undesireds:	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLEDT20030730ACW	45.8 km			
	WDFX-TV	D33	DT	LIC	OZARK, AL	BLCDT20050915APH	151.9			
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	182.0			
	W33EN-D	D33	LD	CP	MADISON, FL	BNPDTL20090825AHE	64.3			
	W33EO-D	D33	LD	CP	TALLAHASSEE, FL	BNPDTL20090825ALP	12.0			
Service area		Terrain-limited		IX-free		Percent IX				
9056.4	442,796	9041.1		442,796	8481.0	438,619	6.20	0.94		
Undesired		Total IX		Unique IX		Prcnt Unique IX				
WFSU-TV	D32 DT LIC	138.0		357	137.0	357	1.52	0.08		
WDFX-TV	D33 DT LIC	12.3		0	12.3	0	0.14	0.00		
W33EN-D	D33 LD CP	356.8		1,804	352.8	1,764	3.90	0.40		
W33EO-D	D33 LD CP	58.0		2,056	53.0	2,016	0.59	0.46		

**Table 2 Interference Study Details
Regarding W33EN-D and W33EO-D**
(page 1 of 2)

Existing Condition
Authorized WUFX-LD Interference to W33EN-D CP: 19.87 percent

Study cell size: 1.00 km
Profile point spacing: 0.20 km

Interference to BNPDTL20090825AHE CP scenario 1

****IX: 19.87% interference caused**

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W33EN-D	D33	LD	CP	MADISON, FL	BNPDTL20090825AHE	
Undesireds:	WUFX-LD	D33	LD	CP	TALLAHASSEE, FL	BLANK0000052521	64.3 km
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	215.0
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	128.1

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	1447.5 14,235	1447.5	14,235	1447.5	14,235	1068.5 11,407	26.18 19.87

Undesired			Total IX		Unique IX, before	Unique IX, after	
WUFX-LD D33 LD CP			379.0	2,828		379.0 2,828	

Proposed Condition
Proposed WUFX-LD Interference to W33EN-D CP: 15.69 percent

Study cell size: 1.00 km
Profile point spacing: 0.20 km

Interference to BNPDTL20090825AHE CP scenario 1

****IX: 15.69% interference caused**

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	W33EN-D	D33	LD	CP	MADISON, FL	BNPDTL20090825AHE	
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	64.3 km
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	215.0
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	128.1

	Service area	Terrain-limited		IX-free, before		IX-free, after	Percent New IX
	1447.5 14,235	1447.5	14,235	1447.5	14,235	1085.5 12,001	25.01 15.69

Undesired			Total IX		Unique IX, before	Unique IX, after	
WUFX-LD D33 LD APP			362.0	2,234		362.0 2,234	

**Table 2 Interference Study Details
Regarding W33EN-D and W33EO-D**
(page 2 of 2)

Existing Condition
Authorized WUFX-LD Interference to W33EO-D CP: 68.64 percent

Study cell size: 1.00 km
Profile point spacing: 0.20 km

Interference to BNPDTL20090825ALP CP scenario 1

****IX: 68.64% interference caused**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W33EO-D	D33	LD	CP	TALLAHASSEE, FL	BNPDTL20090825ALP	
Undesireds:	WUFX-LD	D33	LD	CP	TALLAHASSEE, FL	BLANK0000052521	12.0 km
	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLED20030730ACW	34.6
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	149.7
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	182.1
	WPCT	D33	DT	LIC	PANAMA CITY BEACH, FL	BLANK0000062892	147.6
	W34FQ-D	D34	LD	CP	TALLAHASSEE, FL	BLANK0000071976	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1002.9 260,479		1000.9 260,450		793.1 190,561		171.8 59,768	78.34 68.64
Undesired		Total IX		Unique IX, before		Unique IX, after	
WUFX-LD D33 LD CP		815.2 194,491		621.3 130,793			
WFSU-TV D32 DT LIC		37.0 1,494		7.0 1,131		1.0 182	
WDFX-TV D33 DT CP		22.0 122		4.0 8		0.0 0	
WPCT D33 DT LIC		1.0 0		1.0 0		0.0 0	
W34FQ-D D34 LD CP		177.8 68,636		165.8 68,387		12.0 6,009	

Proposed Condition
Proposed WUFX-LD Interference to W33EO-D CP: 68.64 percent

Study cell size: 1.00 km
Profile point spacing: 0.20 km

Interference to BNPDTL20090825ALP CP scenario 1

****IX: 68.64% interference caused**

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	W33EO-D	D33	LD	CP	TALLAHASSEE, FL	BNPDTL20090825ALP	
Undesireds:	WUFX-LD	D33	LD	APP	TALLAHASSEE, FL	WUFX-LD Ch-33 TUM	12.0 km
	WFSU-TV	D32	DT	LIC	TALLAHASSEE, FL	BLED20030730ACW	34.6
	WDFX-TV	D33	DT	CP	OZARK, AL	BLANK0000035653	149.7
	WXCK-LP	D33	LD	CP	CHIEFLAND, FL	BLANK0000001084	182.1
	WPCT	D33	DT	LIC	PANAMA CITY BEACH, FL	BLANK0000062892	147.6
	W34FQ-D	D34	LD	CP	TALLAHASSEE, FL	BLANK0000071976	0.0
Service area		Terrain-limited		IX-free, before		IX-free, after	Percent New IX
1002.9 260,479		1000.9 260,450		793.1 190,561		171.8 59,768	78.34 68.64
Undesired		Total IX		Unique IX, before		Unique IX, after	
WUFX-LD D33 LD APP		815.2 194,491		621.3 130,793			
WFSU-TV D32 DT LIC		37.0 1,494		7.0 1,131		1.0 182	
WDFX-TV D33 DT CP		22.0 122		4.0 8		0.0 0	
WPCT D33 DT LIC		1.0 0		1.0 0		0.0 0	
W34FQ-D D34 LD CP		177.8 68,636		165.8 68,387		12.0 6,009	

Channel and Facility Information

Section	Question	Response
Facility ID	187680	
State	Florida	
City	TALLAHASSEE	
LPT Channel	33	

Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1031203
Coordinates (NAD83)	Latitude	30° 34' 28.0" N+
	Longitude	084° 12' 09.0" W-
	Structure Type	GTOWER-Guyed Structure Used for Communication Purposes
	Overall Structure Height	274.0 meters
	Support Structure Height	254.0 meters
	Ground Elevation (AMSL)	44.0 meters
Antenna Data	Height of Radiation Center Above Ground Level	259.7 meters
	Height of Radiation Center Above Mean Sea Level	303.7 meters
	Effective Radiated Power	15 kW

**Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Non-Directional
	Do you have an Antenna ID?	
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	Dielectric
	Model	TUM-O4-10/40H-1-R
	Rotation	
	Electrical Beam Tilt	0.5
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Elliptical
Elevation Radiation Pattern	Does the proposed antenna propose elevation radiation patterns that vary with azimuth for reasons other than the use of mechanical beam tilt?	No
	Uploaded file for elevation antenna (or radiation) pattern data	
	Out-of-Channel Emission Mask:	Full Service