

ENGINEERING NARRATIVE
IN SUPPORT OF APPLICATION FOR CONSTRUCTION PERMIT
FOR INCENTIVE AUCTION REASSIGNMENT CHANNEL

Prepared for

BEACH TV PROPERTIES, INC.

WAWD CH 25 Facility ID 54938 19.9 kW DA RC 77.9 M AMSL

FORT WALTON BEACH, FLORIDA

Summary

Beach TV Properties, Inc. ("BTVP") specifies herein its post-auction CH 25 transmission facilities. The proposed facility is based on continued operation from the licensed site which is an FCC Registered tower #1209534. The proposed antenna is an elliptically polarized, slot type, with a horizontally polarized horizontal plane radiation pattern equal to the licensed pattern and the replication pattern. This antenna replaces an existing horizontal only polarized, slot, antenna. At this site and RC AMSL of 77.9 meters the proposed ERP is 19.9 kW as specified on the FCC February 8, 2017 Reassignment letter. The entire community boundary of Fort Walton Beach, Florida well inside the city grade contour.

Attached herein is the TVStudy version 2.2.2 output which demonstrates that the proposed facility complies with the requirements for expedited processing in that there is no new interference to any station, the proposed population is 100 percent of the baseline population and the proposed coverage contour does not exceed the baseline contour.

Environmental

The proposed antenna system is a PSI model PSILPD16AH-25-CP, elliptically polarized, UHF, slot type, TV antenna. The radiation center is 46.8 meters above ground. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 0.1 has been used to calculate the power density 2 meters above ground. The maximum power density is 4.14 uW/cm squared calculated for an ERP of 19,900 watts H. polarization and 4,975 watts V. polarization. This value is 1.16% of the General Population exposure per section 1.1310. Based on this analysis it is believed that the proposed facility follows OET-65 Guidelines.

The applicant will reduce power or cease transmission as required to meet FCC OET-65 Worker Safety Guidelines.

The proposed tower is an existing site with tower, building, access road and power.

TVSTUDY VERSION 2.2.2

Allocation Study Using FCC Transition Facility Data for Evaluation in Preparing July 12, 2017 or Earlier Application for Construction Permit

WAWD-TV CH 25 FORT WALTON BEACH, FL REPLICATION STUDY SUMMARY:

Study created: 2017.06.08 21:00:01

Study build station data: LMS TV 2017-05-21 (5)

Proposal: WAWD D25 DT BL FORT WALTON BEACH, FL
File number: DTVBL54938
Facility ID: 54938
Station data: LMS TV 2017-05-21 (5)
Record ID: DTVBL54938
Country: U.S.

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
WSRE	D24	DT	BL	PENSACOLA, FL	DTVBL17611	73.1 km
WTLF	D24	DT	LIC	TALLAHASSEE, FL	BLCDT20030303ABF	234.6
WAKA	D25	DT	BL	SELMA, AL	DTVBL701	188.6
WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	442.1

WLPB-TV	D25	DT	LIC	BATON ROUGE, LA	BLEDT20101201ALR	415.9
WXXV-TV	D25	DT	BL	GULFPORT, MS	DTVBL53517	212.2
WBIF	D26	DT	BL	MARIANNA, FL	DTVBL81594	132.2

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D25
Latitude: 30 27 14.81 N (NAD83)
Longitude: 86 51 59.26 W
Height AMSL: 77.9 m
HAAT: 61.0 m
Peak ERP: 19.9 kW
Antenna: PSI-PSILP16AH-49 (ID 105433) 356.0 deg

39.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1.15 kW	56.9 m	36.4 km
45.0	6.77	37.7	39.3
90.0	19.5	65.3	51.2
135.0	4.36	75.7	45.9
180.0	1.27	76.0	40.0
225.0	7.28	73.5	48.0
270.0	19.4	76.9	53.0
315.0	4.01	56.3	42.2

Database HAAT does not agree with computed HAAT
Database HAAT: 61 m Computed HAAT: 65 m

Distance to Canadian border: 1302.4 km

Distance to Mexican border: 1103.1 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 27.5 degrees Distance: 429.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 307.9 degrees Distance: 1975.8 km

Study cell size: 2.00 km
Profile point spacing: 1.00 km

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

Proposal receives 10.88% interference from scenario 1
No IX check failures found.

NOTE: ALL WAWD-TV COVERAGE POINTS CREATED BY THE PROGRAM ARE LOCATED WITHIN THE NOISE LIMITED CONTOUR.

WAWD-TV CH 25 FORT WALTON BEACH, FL REPLICATION TVIX STUDY DETAIL :

tvstudy v2.2.2
Database: 127.0.0.1, Study: DTVBL54938 (238), Model: Longley-Rice
Start: 2017.06.08 21:00:28

Study created: 2017.06.08 21:00:01

Study build station data: LMS TV 2017-05-21 (5)

Proposal: WAWD D25 DT BL FORT WALTON BEACH, FL
File number: DTVBL54938
Facility ID: 54938
Station data: LMS TV 2017-05-21 (5)
Record ID: DTVBL54938
Country: U.S.

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
WSRE	D24	DT	BL	PENSACOLA, FL	DTVBL17611	73.1 km
WTLF	D24	DT	LIC	TALLAHASSEE, FL	BLCDT20030303ABF	234.6
WAKA	D25	DT	BL	SELMA, AL	DTVBL701	188.6
WATL	D25	DT	LIC	ATLANTA, GA	BLCDT20020716AAH	442.1
WLPB-TV	D25	DT	LIC	BATON ROUGE, LA	BLEDT20101201ALR	415.9
WXXV-TV	D25	DT	BL	GULFPORT, MS	DTVBL53517	212.2
WBIF	D26	DT	BL	MARIANNA, FL	DTVBL81594	132.2

No non-directional AM stations found within 0.8 km

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Peak ERP: 19.9 kW
Antenna: PSI-PSILP16AH-49 (ID 105433) 356.0 deg

39.9 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	1.15 kW	56.9 m	36.4 km
45.0	6.77	37.7	39.3
90.0	19.5	65.3	51.2
135.0	4.36	75.7	45.9
180.0	1.27	76.0	40.0
225.0	7.28	73.5	48.0
270.0	19.4	76.9	53.0
315.0	4.01	56.3	42.2

Database HAAT does not agree with computed HAAT
Database HAAT: 61 m Computed HAAT: 65 m

Distance to Canadian border: 1302.4 km

Distance to Mexican border: 1103.1 km

Conditions at FCC monitoring station: Powder Springs GA
Bearing: 27.5 degrees Distance: 429.1 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 307.9 degrees Distance: 1975.8 km

Study cell size: 2.00 km
Profile point spacing: 1.00 km

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

Interference to DTVBL17611 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance			
Desired:	WSRE	D24	DT	BL	PENSACOLA, FL	DTVBL17611				
Undesireds:	WAWD	D25	DT	BL	FORT WALTON BEACH, FL	DTVBL54938	73.1 km			
	WDPM-DT	D23	DT	LIC	MOBILE, AL	BLCDDT20090420AAD	0.0			
	WBXA-CD	D24	DC	LIC	BIRMINGHAM, AL	BLANK0000001638	328.1			
	WTLF	D24	DT	LIC	TALLAHASSEE, FL	BLCDDT20030303ABF	305.6			
	WXTX	D24	DT	BL	COLUMBUS, GA	DTVBL12472	330.3			
	WGMB-TV	D24	DT	BL	BATON ROUGE, LA	DTVBL12520	352.9			
	W39CA-D	D24	DC	BL	FULTON, MS	DTVBL68910	388.0			
	WMDN	D24	DT	LIC	MERIDIAN, MS	BLCDDT20090304ADW	216.7			
	WAKA	D25	DT	BL	SELMA, AL	DTVBL701	188.2			
	WXXV-TV	D25	DT	BL	GULFPORT, MS	DTVBL53517	139.5			
Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX		
33716.0	1,355,168	33636.5	1,354,781	32976.3	1,351,115	32956.3	1,351,115	0.06	0.00	
Undesired				Total IX	Unique IX, before		Unique IX, after			
WAWD	D25	DT	BL	20.0	0	20.0	0			
WDPM-DT	D23	DT	LIC	8.0	96	8.0	96			
WXTX	D24	DT	BL	31.8	95	4.0	47			
WGMB-TV	D24	DT	BL	4.0	14	0.0	0			
WMDN	D24	DT	LIC	568.4	2,693	536.6	2,631	536.6	2,631	
WXXV-TV	D25	DT	BL	79.9	830	79.9	830	79.9	830	

Interference to BLCDDT20030303ABF LIC, scenario 1
Proposal causes no interference.

Interference to BLCDDT20030303ABF LIC, scenario 2
Proposal causes no interference.

Interference to DTVBL701 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WAKA	D25	DT	BL	SELMA, AL	DTVBL701	
Undesireds:	WAWD	D25	DT	BL	FORT WALTON BEACH, FL	DTVBL54938	188.6 km
	WBXA-CD	D24	DC	LIC	BIRMINGHAM, AL	BLANK0000001638	148.4
	WSRE	D24	DT	BL	PENSACOLA, FL	DTVBL17611	188.2

WXTX	D24	DT	BL	COLUMBUS, GA	DTVBL12472	181.8
WMDN	D24	DT	LIC	MERIDIAN, MS	BLCDDT20090304ADW	181.0
WATL	D25	DT	LIC	ATLANTA, GA	BLCDDT20020716AAH	292.7
WMAO-TV	D25	DT	LIC	GREENWOOD, MS	BLEDT20090612AAI	377.3
WXXV-TV	D25	DT	BL	GULFPORT, MS	DTVBL53517	266.5
WYHB-CD	D25	DC	APP	CHATTANOOGA, TN	BLANK0000024558	367.0
WTJP-TV	D26	DT	LIC	GADSDEN, AL	BLCDDT20110304ACB	187.6
WYBU-CD	D26	DC	BL	COLUMBUS, GA	DTVBL17544	165.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
40299.2 769,415	39696.2 764,959	39215.7 759,397	39215.7 759,397	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WAWD D25 DT BL	11.9 133	0.0 0	
WSRE D24 DT BL	47.7 478	19.9 130	19.9 130
WMDN D24 DT LIC	16.2 33	0.0 0	0.0 0
WATL D25 DT LIC	256.8 4,244	256.8 4,244	256.8 4,244
WMAO-TV D25 DT LIC	16.1 60	4.0 34	4.0 34
WXXV-TV D25 DT BL	159.8 905	123.9 550	119.9 550
WTJP-TV D26 DT LIC	32.0 223	32.0 223	32.0 223

Interference to DTVBL701 BL, scenario 2

Desired:	Call	Chan	Svc	Status	City, State	File Number	Distance
	WAKA	D25	DT	BL	SELMA, AL	DTVBL701	
Undesireds:	WAWD	D25	DT	BL	FORT WALTON BEACH, FL	DTVBL54938	188.6 km
	WBXA-CD	D24	DC	LIC	BIRMINGHAM, AL	BLANK0000001638	148.4
	WSRE	D24	DT	BL	PENSACOLA, FL	DTVBL17611	188.2
	WXTX	D24	DT	BL	COLUMBUS, GA	DTVBL12472	181.8
	WMDN	D24	DT	LIC	MERIDIAN, MS	BLCDDT20090304ADW	181.0
	WATL	D25	DT	LIC	ATLANTA, GA	BLCDDT20020716AAH	292.7
	WMAO-TV	D25	DT	LIC	GREENWOOD, MS	BLEDT20090612AAI	377.3
	WXXV-TV	D25	DT	BL	GULFPORT, MS	DTVBL53517	266.5
	WYHB-CD	D25	DC	BL	CHATTANOOGA, TN	DTVBL167588	367.0
	WTJP-TV	D26	DT	LIC	GADSDEN, AL	BLCDDT20110304ACB	187.6
	WYBU-CD	D26	DC	BL	COLUMBUS, GA	DTVBL17544	165.6

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
40299.2 769,415	39696.2 764,959	39215.7 759,397	39215.7 759,397	0.00 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
WAWD D25 DT BL	11.9 133	0.0 0	
WSRE D24 DT BL	47.7 478	19.9 130	19.9 130

WMDN D24 DT LIC	16.2	33	0.0	0	0.0	0
WATL D25 DT LIC	256.8	4,244	256.8	4,244	256.8	4,244
WMAO-TV D25 DT LIC	16.1	60	4.0	34	4.0	34
WXXV-TV D25 DT BL	159.8	905	123.9	550	119.9	550
WTJP-TV D26 DT LIC	32.0	223	32.0	223	32.0	223

Interference to BLCDT20020716AAH LIC, scenario 1
Proposal causes no interference.

Interference to BLCDT20020716AAH LIC, scenario 2
Proposal causes no interference.

Interference to BLEDT20101201ALR LIC, scenario 1
Proposal causes no interference.

Interference to DTVBL53517 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WXXV-TV	D25	DT	BL	GULFPORT, MS	DTVBL53517	
Undesireds:	WAWD	D25	DT	BL	FORT WALTON BEACH, FL	DTVBL54938	212.2 km
	WSRE	D24	DT	BL	PENSACOLA, FL	DTVBL17611	139.5
	WMDN	D24	DT	LIC	MERIDIAN, MS	BLCDT20090304ADW	179.1
	WAKA	D25	DT	BL	SELMA, AL	DTVBL701	266.5
	WLPB-TV	D25	DT	LIC	BATON ROUGE, LA	BLEDT20101201ALR	209.6
	WMAO-TV	D25	DT	LIC	GREENWOOD, MS	BLEDT20090612AAI	323.9
	WGNO	D26	DT	LIC	NEW ORLEANS, LA	BLCDT20121019AAK	123.6
	Service area	Terrain-limited		IX-free, before		IX-free, after	
	26633.3	1,178,092	26617.3	1,176,553	25987.5	1,037,518	25987.5 1,037,518
							Percent New IX
							0.00 0.00

Undesired		Total IX	Unique IX, before	Unique IX, after
WAWD D25 DT BL	4.0	769	0.0	0
WSRE D24 DT BL	275.8	120,711	60.0	7,231
WAKA D25 DT BL	494.1	130,494	262.4	16,800
WLPB-TV D25 DT LIC	55.7	924	39.8	740
WMAO-TV D25 DT LIC	19.8	306	4.0	90
WGNO D26 DT LIC	24.1	387	24.1	387

Interference to DTVBL81594 BL, scenario 1

Proposal causes no interference.

Interference to proposal, scenario 1
10.88% interference

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WAWD	D25	DT	BL	FORT WALTON BEACH, FL	DTVBL54938	
Undesireds:	WSRE	D24	DT	BL	PENSACOLA, FL	DTVBL17611	73.1 km
	WAKA	D25	DT	BL	SELMA, AL	DTVBL701	188.6
	WXXV-TV	D25	DT	BL	GULFPORT, MS	DTVBL53517	212.2
	WBIF	D26	DT	BL	MARIANNA, FL	DTVBL81594	132.2

Service area		Terrain-limited		IX-free		Percent IX	
6263.4	553,618	6247.4	553,533	5574.3	493,294	10.77	10.88

Undesired	Total IX	Unique IX	Prcnt Unique IX
WSRE D24 DT BL	416.2	59,914	292.2
WAKA D25 DT BL	376.8	2,399	248.9
WXXV-TV D25 DT BL	64.0	1,509	0.0

54938	BLCDT20100429AAK	WAWD	25	FORT WALTON BEACH	FL	DT	6263.4	553618	6247.4	553533	5574.3	493294
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NOTE: POPULATION IS EQUAL TO 100% OF THE BASELINE VALUE.

Conclusion

Based on the information supplied herein, and accompanying application for construction permit, it is believed that the proposed facilities meet all applicable FCC requirements for construction permit.

The foregoing was prepared on behalf of Beach TV Properties, Inc. by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The undersigned certifies, under penalty of perjury, that the statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.



By _____

Clarence M. Beverage
for Communications Technologies, Inc.
Marlton, New Jersey
July 10, 2017

