

**ENGINEERING NARRATIVE**  
**IN SUPPORT OF APPLICATION FOR CONSTRUCTION PERMIT**  
**FOR INCENTIVE AUCTION REASSIGNMENT CHANNEL**  
  
**Prepared for**  
  
**BEACH TV PROPERTIES, INC.**  
  
**KNOV-CD CH 31 Facility ID 64048 5.16 kW DA RC 202.9 M AMSL**  
  
**NEW ORLEANS, LOUISIANA**

**Summary**

Beach TV Properties, Inc. ("BTVP") specifies herein its post-auction CH 31 transmission facilities. The proposed facility is based on continued operation from the licensed site which is an FCC Registered tower #1206509. 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 202.9 meters the proposed ERP is 5.16 kW as specified on the FCC February 8, 2017 Reassignment letter. The entire community boundary of New Orleans, Louisiana is well inside the 50.4 dBu Noise Limited contour and also the Grade B 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 PSILPD8ABR-22-EP, elliptically polarized, UHF, slot type, TV antenna. The radiation center is 48.4 meters above ground. Utilizing formula 10 OF OET Bulletin No. 65, Edition 97-01, a value F of 0.2 has been used to calculate the power density 2 meters above ground. The maximum power density is 2.93 uW/cm squared calculated for an ERP of 3,780 watts H. polarization and 945 watts V. polarization. This value is 0.85% 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

## KNOV-CD CH 31 NEW ORLEANS, LA REPLICATION STUDY SUMMARY:

Study created: 2017.06.08 19:41:45

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

Proposal: KNOV-CD D31 DC BL NEW ORLEANS, LA  
File number: DTVBL64048  
Facility ID: 64048  
Station data: LMS TV 2017-05-21 (5)  
Record ID: DTVBL64048  
Country: U.S.

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
WEIQ	D30	DT	BL	MOBILE, AL	DTVBL721	223.3 km
WLFT-CD	D30	DC	LIC	BATON ROUGE, LA	BLDTA20110912ACB	105.9

KFOL-CD	D30	DC	LIC	HOUMA, LA	BLDTA20100111AGW	71.4
WLBT	D30	DT	LIC	JACKSON, MS	BLCDDT20100119AEE	253.1
WNCB	D31	DT	LIC	MONTGOMERY, AL	BLANK0000001319	397.3
WPAN	D31	DT	BL	FORT WALTON BEACH, FL	DTVBL31570	299.9
KLAX-TV	D31	DT	LIC	ALEXANDRIA, LA	BLCDDT20090622AGN	297.0
KAGN-CD	D31	DC	LIC	CROWLEY, LA	BLANK0000001651	225.6
WGBC	D31	DT	LIC	MERIDIAN, MS	BLCDDT20071024AAK	294.8
WBXH-CD	D32	DC	BL	BATON ROUGE, LA	DTVBL51806	119.9
WLOX	D32	DT	BL	BILOXI, MS	DTVBL13995	127.1

Non-directional AM stations within 0.8 km:

WGSO 990 L ND1 D NEW ORLEANS, LA BL19871209AF

WGSO 990 L ND1 N NEW ORLEANS, LA BL19871209AF

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D31

Mask: Full Service

Latitude: 29 57 7.73 N (NAD83)

Longitude: 90 4 13.26 W

Height AMSL: 202.9 m

HAAT: 0.0 m

Peak ERP: 5.16 kW

Antenna: PSI-PSILP16BF (ID 20389) 0.0 deg

50.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.322 kW	203.6 m	30.8 km
45.0	3.91	203.7	43.8
90.0	2.75	202.0	41.8
135.0	0.177	203.2	27.7
180.0	0.405	202.7	31.9
225.0	0.177	201.8	27.7
270.0	2.75	200.6	41.8
315.0	3.91	203.7	43.8

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 203 m

Distance to Canadian border: 1462.1 km

Distance to Mexican border: 804.8 km

Conditions at FCC monitoring station: Powder Springs GA  
Bearing: 47.9 degrees Distance: 665.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 313.5 degrees Distance: 1778.5 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%

No IX check failures found.

**NOTE: ALL KNOV-CD COVERAGE POINTS CREATED BY THE PROGRAM ARE LOCATED WITHIN THE NOISE LIMITED CONTOUR.**

## **KNOV-CD CH 31 NEW ORLEANS, LA REPLICATION TVIX STUDY DETAIL :**

tvstudy v2.2.2  
Database: 127.0.0.1, Study: DTVBL64048 (237), Model: Longley-Rice  
Start: 2017.06.08 19:42:07

Study created: 2017.06.08 19:41:45

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

Proposal: KNOV-CD D31 DC BL NEW ORLEANS, LA  
File number: DTVBL64048  
Facility ID: 64048  
Station data: LMS TV 2017-05-21 (5)  
Record ID: DTVBL64048  
Country: U.S.

Stations potentially affected:

Call	Chan	Svc	Status	City, State	File Number	Distance
WEIQ	D30	DT	BL	MOBILE, AL	DTVBL721	223.3 km
WLFT-CD	D30	DC	LIC	BATON ROUGE, LA	BLDTA20110912ACB	105.9
KFOL-CD	D30	DC	LIC	HOUMA, LA	BLDTA20100111AGW	71.4
WLBT	D30	DT	LIC	JACKSON, MS	BLCDT20100119AEE	253.1
WNCF	D31	DT	LIC	MONTGOMERY, AL	BLANK0000001319	397.3

WPAN	D31	DT	BL	FORT WALTON BEACH, FL	DTVBL31570	299.9
KLAX-TV	D31	DT	LIC	ALEXANDRIA, LA	BLCDT20090622AGN	297.0
KAGN-CD	D31	DC	LIC	CROWLEY, LA	BLANK0000001651	225.6
WGBC	D31	DT	LIC	MERIDIAN, MS	BLCDT20071024AAK	294.8
WBXH-CD	D32	DC	BL	BATON ROUGE, LA	DTVBL51806	119.9
WLOX	D32	DT	BL	BILOXI, MS	DTVBL13995	127.1

Non-directional AM stations within 0.8 km:

WGSO 990 L ND1 D NEW ORLEANS, LA BL19871209AF

WGSO 990 L ND1 N NEW ORLEANS, LA BL19871209AF

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D31

Mask: Simple

Latitude: 29 57 7.73 N (NAD83)

Longitude: 90 4 13.26 W

Height AMSL: 202.9 m

HAAT: 0.0 m

Peak ERP: 5.16 kW

Antenna: PSI-PSILP16BF (ID 20389) 0.0 deg

50.4 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.322 kW	203.6 m	30.8 km
45.0	3.91	203.7	43.8
90.0	2.75	202.0	41.8
135.0	0.177	203.2	27.7
180.0	0.405	202.7	31.9
225.0	0.177	201.8	27.7
270.0	2.75	200.6	41.8
315.0	3.91	203.7	43.8

Database HAAT does not agree with computed HAAT

Database HAAT: 0 m Computed HAAT: 203 m

Distance to Canadian border: 1462.1 km

Distance to Mexican border: 804.8 km

Conditions at FCC monitoring station: Powder Springs GA

Bearing: 47.9 degrees Distance: 665.7 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
Bearing: 313.5 degrees Distance: 1778.5 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%

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Interference to DTVBL721 BL, scenario 1  
Proposal causes no interference.

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Interference to BLDTA20110912ACB LIC, scenario 1  
Proposal causes no interference.

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Interference to BLDTA20100111AGW LIC, scenario 1  
Proposal causes no interference.

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Interference to BLCDDT20100119AEE LIC, scenario 1  
Proposal causes no interference.

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Interference to BLANK0000001319 LIC, scenario 1  
Proposal causes no interference.

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Interference to DTVBL31570 BL, scenario 1  
Proposal causes no interference.

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Interference to BLCDDT20090622AGN LIC, scenario 1  
Proposal causes no interference.

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Interference to BLANK0000001651 LIC, scenario 1  
Proposal causes no interference.

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Interference to BLCDT20071024AAK LIC, scenario 1  
Proposal causes no interference.

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Interference to DTVBL51806 BL, scenario 1  
Proposal causes no interference.

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Interference to DTVBL13995 BL, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	WLOX	D32	DT	BL	BILOXI, MS	DTVBL13995	
Undesireds:	KNOV-CD	D31	DC	BL	NEW ORLEANS, LA	DTVBL64048	127.1 km
	WGBC	D31	DT	LIC	MERIDIAN, MS	BLCDT20071024AAK	182.3
	WBXH-CD	D32	DC	BL	BATON ROUGE, LA	DTVBL51806	202.4
	WABG-TV	D32	DT	LIC	GREENWOOD, MS	BLCDT20051024ABR	324.6
	WPXL-TV	D33	DT	BL	NEW ORLEANS, LA	DTVBL21729	126.5

Service area	Terrain-limited	IX-free, before	IX-free, after	Percent New IX
29246.7 1,129,974	29206.9 1,124,418	29046.3 1,121,668	29042.3 1,121,668	0.01 0.00

Undesired	Total IX	Unique IX, before	Unique IX, after
KNOV-CD D31 DC BL 44.2	4	4.0	0
WABG-TV D32 DT LIC 4.0	40	4.0	40
WPXL-TV D33 DT BL 156.6	2,710	156.6	2,710
		116.4	2,706

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Interference to proposal, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KNOV-CD	D31	DC	BL	NEW ORLEANS, LA	DTVBL64048	
Undesireds:	WLFT-CD	D30	DC	LIC	BATON ROUGE, LA	BLDTA20110912ACB	105.9 km
	KFOL-CD	D30	DC	LIC	HOUMA, LA	BLDTA20100111AGW	71.4
	WPAN	D31	DT	BL	FORT WALTON BEACH, FL	DTVBL31570	299.9
	KLAX-TV	D31	DT	LIC	ALEXANDRIA, LA	BLCDT20090622AGN	297.0
	KAGN-CD	D31	DC	LIC	CROWLEY, LA	BLANK0000001651	225.6
	WGBC	D31	DT	LIC	MERIDIAN, MS	BLCDT20071024AAK	294.8
	WBXH-CD	D32	DC	BL	BATON ROUGE, LA	DTVBL51806	119.9
	WLOX	D32	DT	BL	BILOXI, MS	DTVBL13995	127.1

Service area	Terrain-limited	IX-free	Percent IX
4206.2 912,093	4206.2 912,093	4206.2 912,093	0.00 0.00

64048	BLDTL20071019AXQ	KNOV- CD	31	NEW ORLEANS	LA	DC	4206.2	912093	4206.2	912093	4206.2	912093
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**NOTE: POPULATION IS EQUAL TO 100.0 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



