

TECHNICAL SUMMARY

TELEVISION STATION WFXB (STA)
MYRTLE BEACH, SOUTH CAROLINA
CHANNEL 18 218 KW (MAX-DA) 429 M HAAT

1. The instant request is for Special Temporary Authority (STA) for WFXB, Myrtle Beach, South Carolina, which is licensed for operation on Channel 18.*
2. The proposed STA system will be employed for use as an interim antenna to facilitate the repack of the WFXB facility from its licensed channel to Channel 36, for which it holds a construction permit.†
3. The WFXB STA facility will operate on Channel 18 using an antenna to be side-mounted on the WFXB main facility tower at a height of 427.6 m above ground level.‡ There will be no change in the overall height of the existing structure.
4. The proposed STA antenna system has been designed such that there will be no extension of the predicted noise-limited service contour of the STA facility beyond that of the main facility. This is demonstrated in the attached Predicted Coverage Contours exhibit.

* See FCC File No. BLCDDT-20070205ACJ.

† See FCC File No. 0000027052.

‡ The tower site is identified by FCC Antenna Structure Registration Number 1013613 and it has an overall height above ground level of 467.3 m.



(DRAFT COPY - Not for submission)

DTV Engineering STA Application

File Number: Submit Date: **03/12/2018** Call Sign: **WFXB** Facility ID: **9054** FRN: **0005017900** State:
South Carolina City: **MYRTLE BEACH**
Service: **DTV** Purpose: **Engineering STA** Status: **Saved** Status Date: **03/12/2018** Filing Status: **Active**

General Information

Section	Question	Response
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Fees, Waivers, and Exemptions

Section	Question	Response
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Fees	Is the applicant exempt from FCC application Fees? Indicate reason for fee exemption:	No
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Waivers	Does this filing request a waiver of the Commission's rule(s)? Total number of rule sections involved in this waiver request:	No
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Application Type	Fee Code	Fee Amount
Engineering STA	MGT	190.0
	Total	190.0

**Applicant
Information**

Applicant Name, Type, and Contact Information

Applicant	Address	Phone	Email	Applicant Type
SPRINGFIELD BROADCASTING PARTNERS Doing Business As: SPRINGFIELD BROADCASTING PARTNERS	Beverly B. Poston ONE TELEVISION PLACE CHARLOTTE, NC 28205 United States	+1 (704) 372-4434	BPoston@bahakel. com	General Partnership

Authorization Holder Name

- Check box if the Authorization Holder name is being updated because of the sale (or transfer of control) of the Authorization(s) to another party and for which proper Commission approval has not been received or proper notification provided.

**Contact
Representatives
(3)**

Contact Name	Address	Phone	Email	Contact Type
Louis R duTreil , Jr . <i>Technical Consultant</i> duTreil Lundin & Rackley Inc	3135 Southgate Circle Sarasota, FL 34239 United States	+1 (941) 329- 6004	bobjr@DLR.com	Technical Representative
Elizabeth Spainhour Brooks, Pierce et al.	Elizabeth Spainhour 150 Fayetteville Street Suite 1700 Raleigh, NC 27601 United States	+1 (919) 839- 0300	espainhour@brookspierce. com	Legal Representative
M. Anne Swanson <i>Legal Counsel</i> Wilkinson Barker Knauer LLP	M. Anne Swanson 1800 M Street NW Suite 800N Washington, DC 20036 United States	+1 (202) 383- 3342	ASwanson@wbklaw.com	Legal Representative

Channel and Facility Information

Section	Question	Response
Proposed Community of License	Facility ID	9054
	State	South Carolina
	City	MYRTLE BEACH
	DTV Channel	18
Facility Type	Facility Type	Commercial
	Station Type	Main
Zone	Zone	2

Antenna Location Data

Section	Question	Response
Antenna Structure Registration	Do you have an FCC Antenna Structure Registration (ASR) Number?	Yes
	ASR Number	1013613
Coordinates (NAD83)	Latitude	34° 11' 20.0" N+
	Longitude	079° 10' 59.0" W-
	Structure Type	GTOWER-Guyed Structure Used for Communication Purposes
	Overall Structure Height	467.3 meters
	Support Structure Height	449.6 meters
	Ground Elevation (AMSL)	23.2 meters
Antenna Data	Height of Radiation Center Above Ground Level	427.6 meters
	Height of Radiation Center Above Average Terrain	429 meters
	Height of Radiation Center Above Mean Sea Level	450.8 meters
	Effective Radiated Power	218 kW

**Antenna
Technical Data**

Section	Question	Response
Antenna Type	Antenna Type	Directional Custom
	Do you have an Antenna ID?	No
	Antenna ID	
Antenna Manufacturer and Model	Manufacturer:	DIE
	Model	TFU-8WB-1-R C160
	Rotation	213 degrees
	Electrical Beam Tilt	1.05
	Mechanical Beam Tilt	Not Applicable
	toward azimuth	
	Polarization	Horizontal
DTV and DTS: Elevation 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	

Directional Antenna Relative Field Values (Pre-rotated Pattern)

Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)	Degree	V _A (Authorized Value)
0	.792	90	.898	180	.677	270	.898
10	.809	100	.851	190	.634	280	.937
20	.853	110	.78	200	.523	290	.972
30	.911	120	.672	210	.414	300	.996
40	.964	130	.533	220	.416	310	.995
50	.995	140	.413	230	.534	320	.966
60	.997	150	.411	240	.673	330	.913
70	.974	160	.521	250	.781	340	.854
80	.938	170	.632	260	.851	350	.809

Additional Azimuths

Degree	V _A
55	1.0

Certification**Section****Question****Response****General Certification Statements**

The Applicant waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by authorization or otherwise, and requests an Authorization in accordance with this application (See Section 304 of the Communications Act of 1934, as amended.).

The Applicant certifies that neither the Applicant nor any other party to the application is subject to a denial of Federal benefits pursuant to §5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C. §862, because of a conviction for possession or distribution of a controlled substance. This certification does not apply to applications filed in services exempted under §1.2002(c) of the rules, 47 CFR . See §1.2002(b) of the rules, 47 CFR §1.2002(b), for the definition of "party to the application" as used in this certification §1.2002 (c). The Applicant certifies that all statements made in this application and in the exhibits, attachments, or documents incorporated by reference are material, are part of this application, and are true, complete, correct, and made in good faith.

Authorized Party to Sign**FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID**

Upon grant of this application, the Authorization Holder may be subject to certain construction or coverage requirements. Failure to meet the construction or coverage requirements will result in automatic cancellation of the Authorization. Consult appropriate FCC regulations to determine the construction or coverage requirements that apply to the type of Authorization requested in this application.

WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND /OR IMPRISONMENT (U.S. Code, Title 18, §1001) AND/OR REVOCATION OF ANY STATION AUTHORIZATION (U.S. Code, Title 47, §312(a)(1)), AND/OR FORFEITURE (U.S. Code, Title 47, §503).

I certify that this application includes all required and relevant attachments.

I declare, under penalty of perjury, that I am an authorized representative of the above-named applicant for the Authorization(s) specified above.

Attachments

File Name	Uploaded By	Attachment Type	Description
<u>WFXB_18_STA_Antenna_Information.pdf</u>	Applicant	All Purpose	ANTENNA INFORMATION
<u>WFXB_18_STA_Coverage_Map.pdf</u>	Applicant	All Purpose	PREDICTED COVERAGE CONTOURS
<u>WFXB_18_STA_RF_Hazard_Statement.pdf</u>	Applicant	All Purpose	RF HAZARD STATEMENT
<u>WFXB_18_STA_Technical_Summary.pdf</u>	Applicant	General Information	TECHNICAL SUMMARY

RF HAZARD STATEMENT

TELEVISION STATION WFXB (STA)
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CHANNEL 18 218 KW (MAX-DA) 429 M HAAT

With respect to the potential for human exposure to radio frequency (RF) energy, calculations prepared in accordance with FCC Bulletin OET-65 (Edition 97-01) indicate that the proposal will not result in human exposure to RF energy at ground level in excess of FCC standards. Power density calculations were conducted at 2-m above ground* based on the following conservative assumptions, with the following results:

Call Sign	Channel	Average ERP (kW)	Distance (m)	Relative Field Factor†	FCC Limit‡ (mW/cm ²)	Percentage of Limit
WFXB (STA)	18	218.0	427.6	0.20	0.331	0.5%

As indicated above, the exposure to RF energy at 2-m above ground level will not exceed 0.5% of the FCC limit for general population / uncontrolled exposure. Therefore, the proposal complies with the FCC limits for human exposure to RF energy and it is categorically excluded from environmental processing.

The applicant, in coordination with other users of the transmission facility, shall reduce power or cease operation as necessary to protect persons having access to the tower or antenna from RF energy in excess of the FCC guidelines.

* The radiation center is located at 427.6 m above ground level.

† This is a conservative assumption for the maximum relative field at steep downward angles.

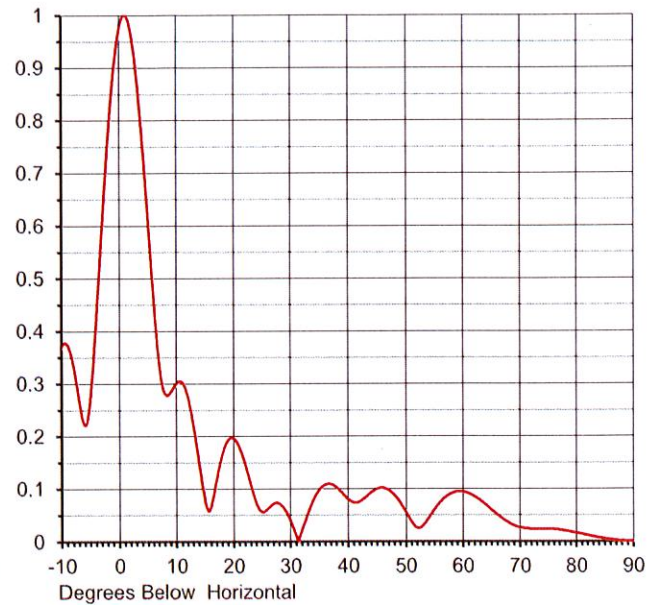
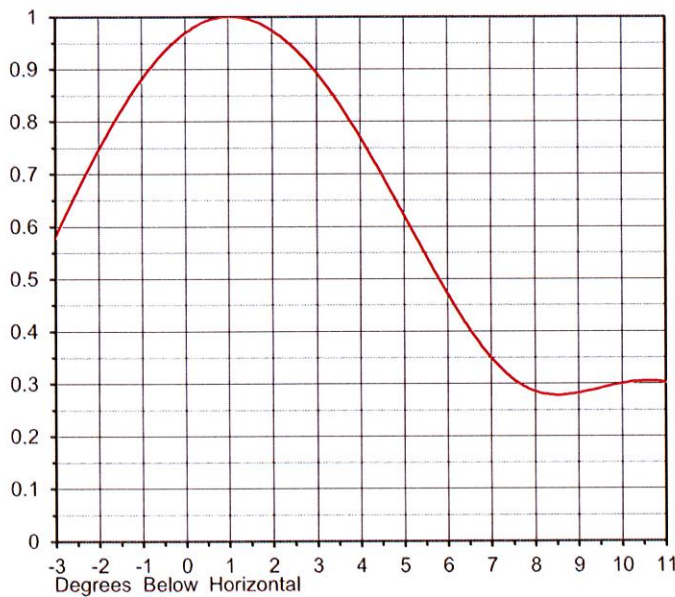
‡ for general population/uncontrolled environments

ELEVATION PATTERN

Proposal No. **C-06478**
 Date **6-Dec-16**
 Call Letters **25 DTV**
 Frequency **539 MHz**
 Antenna Type **TFU-8WB-1-R C160**

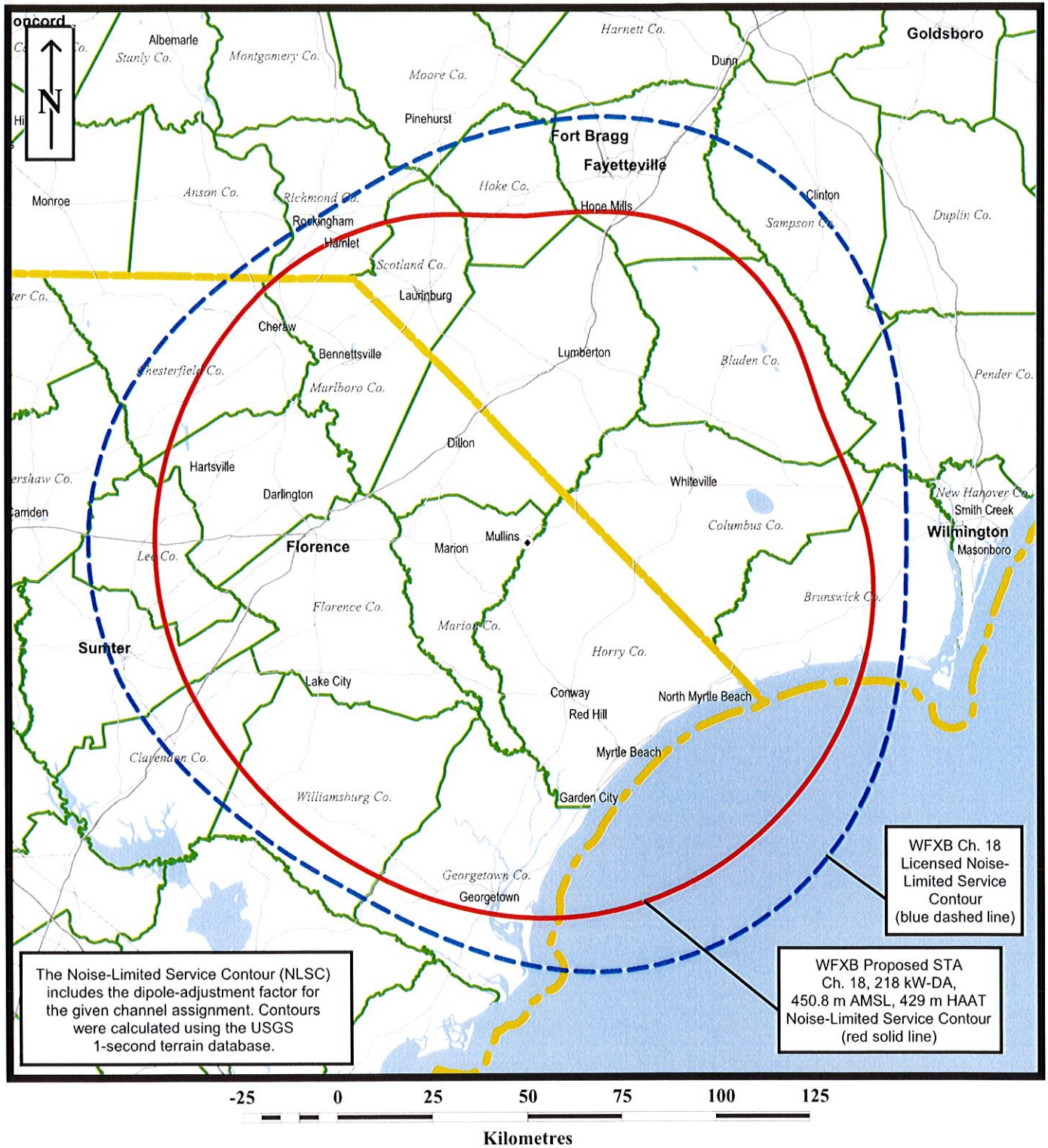
RMS Directivity at Main Lobe **7.91 (8.98 dB)**
 RMS Directivity at Horizontal **7.40 (8.69 dB)**
Calculated

Beam Tilt **1.05 deg**
 Drawing Number **08W079105**



Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.368	10.0	0.299	30.0	0.041	50.0	0.057	70.0	0.026
-9.0	0.374	11.0	0.302	31.0	0.013	51.0	0.039	71.0	0.024
-8.0	0.340	12.0	0.278	32.0	0.018	52.0	0.026	72.0	0.023
-7.0	0.275	13.0	0.226	33.0	0.049	53.0	0.029	73.0	0.023
-6.0	0.222	14.0	0.155	34.0	0.076	54.0	0.043	74.0	0.023
-5.0	0.266	15.0	0.083	35.0	0.096	55.0	0.059	75.0	0.023
-4.0	0.406	16.0	0.063	36.0	0.106	56.0	0.073	76.0	0.022
-3.0	0.579	17.0	0.113	37.0	0.108	57.0	0.083	77.0	0.021
-2.0	0.744	18.0	0.161	38.0	0.102	58.0	0.090	78.0	0.020
-1.0	0.879	19.0	0.190	39.0	0.092	59.0	0.094	79.0	0.018
0.0	0.968	20.0	0.196	40.0	0.080	60.0	0.094	80.0	0.016
1.0	1.000	21.0	0.180	41.0	0.073	61.0	0.091	81.0	0.014
2.0	0.974	22.0	0.150	42.0	0.075	62.0	0.085	82.0	0.011
3.0	0.894	23.0	0.111	43.0	0.082	63.0	0.078	83.0	0.009
4.0	0.771	24.0	0.075	44.0	0.092	64.0	0.069	84.0	0.007
5.0	0.623	25.0	0.057	45.0	0.099	65.0	0.060	85.0	0.005
6.0	0.473	26.0	0.061	46.0	0.101	66.0	0.051	86.0	0.003
7.0	0.349	27.0	0.070	47.0	0.097	67.0	0.043	87.0	0.002
8.0	0.285	28.0	0.072	48.0	0.088	68.0	0.036	88.0	0.001
9.0	0.281	29.0	0.062	49.0	0.074	69.0	0.030	89.0	0.000
								90.0	0.000

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PREDICTED COVERAGE CONTOURS

duTreil, Lundin & Rackley, Inc. Sarasota, Florida