



## **ENGINEERING STATEMENT**

**IN SUPPORT OF**

**MODIFICATION OF CONSTRUCTION PERMIT**

**WSWF-LD**

**ORLANDO, FL**

### **Background**

Major Market Broadcasting of Florida, Inc. (MMB) is the licensee of digital low-power station WSWF-LD (LMS File#0000001684, Facility ID. 61703) near Orlando, FL. The station currently operates on Ch. 45 and has a Construction Permit to displace the facility from Ch. 45 to Ch. 29 (LMS File No. 0000053617).

The current displacement Construction Permit specifies a horizontally polarized “SWR SWLP16MC Modified” antenna with an orientation of 10° relative to True North. WSWF-LD, in the instant application, seeks to modify the Construction Permit to specify a different antenna with a different orientation: an elliptically polarized Scala 4x2 750 10325 antenna with an orientation 346° relative to True North.

As was identified in the amended displacement application, Ch. 29 is the pre-auction channel for WFTS-TV (Tampa, FL) and the proposed WSWF-LD displacement facility is predicted to cause to the facility interference. WFTS-TV is scheduled to transition to its post-auction channel (Ch. 17) in Phase 7 (construction deadline of January 17, 2020). MMB agrees to the condition that WSWF-LD will not begin operating on Ch. 29 prior to WFTS-TV discontinuing its operation on Ch. 29.

**PROVIDING COMMUNICATION  
SYSTEMS ENGINEERING**

CORPORATE OFFICE  
1475 NORTH 200 WEST  
NEPHI, UT 84648

TEL: (435) 623-8601  
FAX: (435) 623-8610

REGIONAL OFFICE  
6197 MILLER RD.  
SWARTZ CREEK, MI 48473

TEL: (810)-226-0750



## **Displacement Parameters**

MMB is proposing the following parameters for the WSWF-LD digital operation on Ch. 29:

Coordinates:	28° 34' 07.8" N (NAD83) 81° 13' 53.8" W
ERP:	15.0 kW
RCAMSL:	128.5m
RCAGL:	106.2m
ASR#:	1034290
Antenna:	Scala 4x2 75010325
Mask:	Full-Service

## **Interference**

An interference study was conducted of the proposed facility parameters using the FCC TVStudy software (Version 2.2.5) with the default parameters. The WFTS-TV (Ch. 29) pre-auction record was excluded from the TVStudy analysis since WSWF-LD would not be allowed to begin operating on Ch. 29 until WFTS-TV has ceased operation on Ch. 29.

The results of the study (copy attached hereto) show that potential interference is not predicted to exceed 0.49% to any full-service DTV or Class A stations or 1.99% to any low power stations as required by the Commission's Rules.

## **Environmental/RFR**

This report addresses only the conditions specified in 47CFR1.1307 that deal with Radio Frequency Radiation. Any other non-RFR conditions that might require the preparation of an EA

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are beyond the scope of this report; since the structure is existing and registered, such conditions should not be an issue requiring further consideration.

The location of the proposed post-incentive auction facility is assumed to currently be “in compliance” with FCC guidelines for human exposure to RFR (as defined in OET-65). The worst case ground level RFR contributed to the site by this proposal in public areas is calculated to be 0.005400 mW/cm<sup>2</sup>, which is less than 5% of the MPE for public exposure (0.373333 mW/cm<sup>2</sup>) at Ch. 29 (560-566 MHz). Per Section 1.1307(b) of the FCC Rules, the proposed operation would be categorically excluded from taking corrective action in areas with levels above the MPE limit where the contribution to the RFR from the proposed facility is less than 5%.

MMB agrees to comply with the Commission’s requirements regarding power adjustments or cessation of operation as may be necessary to ensure a compliant environment for worker access. Workers will be trained on RFR issues and encouraged to wear personal RFR monitors when on the structure.

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**Certification**

I hereby certify that the foregoing report or statement was prepared by me but may include work performed by others under my supervision or direction. The statements of fact contained therein are believed to be true and correct based on personal knowledge, information and belief unless otherwise stated; with respect to facts not known of my own personal knowledge, I believe them to be true and correct based on their origin from sources known to me to be generally reliable and accurate. I have prepared this document with due care and in accordance with applicable standards of professional practice.

A handwritten signature in black ink, appearing to read "Ben Pidek", is written over a horizontal line.

Benjamin L. Pidek, P.E.  
January 10, 2020

Attached:  
TVStudy Interference Check Report

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## TVStudy TV Interference Check Report for WSWF-LD on Ch. 29

Study created: 2020.01.10 17:04:52

Study build station data: LMS TV 2020-01-10

Proposal: WSWF-LD D29 LD APP ORLANDO, FL  
 File number: WSWF-Scala4x2-75010325  
 Facility ID: 61703  
 Station data: User record  
 Record ID: 1536  
 Country: U.S.

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

Individual records excluded:  
 20090320AGN WFTS-TV D29 DT LIC TAMPA, FL BLCDT20090320AGN

Stations potentially affected by proposal:

IX	Call	Chan	Svc	Status	City, State	File Number	Distance
No	WSVT-LD	N14z	TX	LIC	TAMPA, FL	BLTTTL19950321IB	158.1 km
No	W21AU-D	N21+	TX	LIC	ORLANDO, FL	BLTTTL19920715IB	22.3
No	WGFL	D28	DT	LIC	HIGH SPRINGS, FL	BLCDT20060714ABC	175.8
No	WZVN-TV	D28	DT	CP	NAPLES, FL	BLANK0000068173	201.0
No	WRBW	D28	DT	CP	ORLANDO, FL	BLANK0000064099	14.7
No	WDTO-LD	D28	LD	LIC	ORLANDO, FL	BLDTL20130802ABO	15.3
No	WQXT-CD	D28	DC	LIC	ST. AUGUSTINE, FL	BLANK000001382	149.1
No	WTAM-LD	D28	LD	LIC	TAMPA, FL	BLDTL20100416AAS	130.7
Yes	WXPX-TV	D29	DT	CP	BRADENTON, FL	BLANK0000034359	130.7
No	WTBZ-LP	N29z	TX	LIC	GAINESVILLE, FL	BLTTTL20050907ABX	159.1
No	WGFL	D29	DT	CP	HIGH SPRINGS, FL	BLANK0000034417	175.8
No	W29EK-D	D29	LD	CP	MADISON, FL	BNPDTL20100513ALL	276.8
No	WMVJ-CD	D29	DC	LIC	MELBOURNE, FL	BLDTA20121120AEA	79.5
No	WPBT	D29	DT	LIC	MIAMI, FL	BLANK0000067623	307.1
No	WDOX-LD	D29	LD	CP	SEBASTIAN, FL	BLANK0000087268	143.8
No	WQXT-CD	D29	DC	CP	ST. AUGUSTINE, FL	BLANK0000028538	149.1
No	WEFS	D30	DT	LIC	COCOA, FL	BLEDT20130801ABM	17.4
No	W30EE-D	D30	LD	LIC	JACKSONVILLE, FL	BLANK0000090922	199.6
No	W30EM-D	D30	LD	CP	OCALA, FL	BLANK0000071927	165.8
No	WALM-LD	D30	LD	CP	SEBRING, FL	BLANK0000051586	120.8
No	WRMD-CD	D30	DC	LIC	TAMPA, FL	BLANK0000091495	129.0
No	W45DT-D	D30	LD	CP	Vero Beach, FL	BLANK0000080511	135.7
No	WSCF-LD	N31z	TX	LIC	MELBOURNE, FL	BLTTTL20000329ABC	69.6
No	WDNP-LD	N36+	TX	LIC	ST. PETERSBURG, FL	BLTT20020725AAC	158.1

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

Channel: D29

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Mask: Full Service  
 Latitude: 28 34 7.80 N (NAD83)  
 Longitude: 81 13 53.80 W  
 Height AMSL: 128.5 m  
 HAAT: 0.0 m  
 Peak ERP: 15.0 kW  
 Antenna: Scala 4x2 75010325 0.0 deg  
 Elev Pattnr: Generic

50.2 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	5.71 kW	118.2 m	40.6 km
45.0	11.6	114.7	43.8
90.0	0.733	110.2	29.4
135.0	0.001	109.3	6.2
180.0	0.001	104.7	6.2
225.0	0.134	100.6	19.4
270.0	5.82	100.8	39.0
315.0	10.0	105.9	42.3

Database HAAT does not agree with computed HAAT  
 Database HAAT: 0 m Computed HAAT: 108 m

Distance to Canadian border: 1460.7 km

Distance to Mexican border: 1575.7 km

Conditions at FCC monitoring station: Vero Beach FL  
 Bearing: 151.2 degrees Distance: 122.0 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:  
 Bearing: 306.7 degrees Distance: 2536.6 km

Study cell size: 1.00 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%

---- Below is IX received by proposal WSWF-Scala4x2-75010325 ----

Proposal receives 25.83% interference from scenario 1  
**No IX check failures found.**

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