TECHNICAL STATEMENT
IN SUPPORT OF REQUEST FOR EXPERIMENTAL AUTHORIZATION
FOR ASYMMETRICAL SIDEBAND OPERATION
-10 DBC/-14 DBC LSB/USB DIGITAL POWER
FM BROADCAST STATION WINK-FM
FORT MYERS, FLORIDA
CHANNEL 245C

This Technical Statement was prepared on behalf of FM Broadcast Station WINK-FM, Fort Myers, Florida, in support of a request for Experimental Authorization for asymmetrical sideband operation. The request is to authorize testing with -10 dBc, lower sideband (LSB), and -14 dBc, upper sideband (USB), digital IBOC emissions. WINK-FM is currently authorized digital IBOC emissions for -14 dBc with symmetric sideband power levels. See FCC File No. BDNH-20200803AAB.

1. The applicant requests experimental authorization for -10 dBc/-14 dBc LSB/USB digital power using MP1 mode of the Ibiquity IBOC standard. As demonstrated at Figure 1 herein, the WINK-FM facility meets the contour overlap requirements for protection of stations affected by the LSB on Channel 244.[*] Figure 2 is a tabulation of all the first-adjacent channel stations on Channel 244 within 300 km that were considered in the analysis.

2. The engineering contact information for WINK-FM is as follows:

Timothy J. White
RF Systems Engineer
2824 Palm Beach Boulevard
Fort Myers, FL 33916
217-316-0487
tim.white@fmbcmail.com

[*] See FCC *Order*, MM Docket 99-325, Released: January 29, 2010, at para. 20.

3. The station proposes asymmetrical digital IBOC operation with common amplification using its main transmitting antenna. The antenna will operate with a digital effective radiated power (ERP) of 5.0 kW (LSB) and 2.0 kW (USB).

4. Use of MP1 service mode and -10 dBc/-14 dBc LSB/USB asymmetric digital sideband power levels are to be employed.

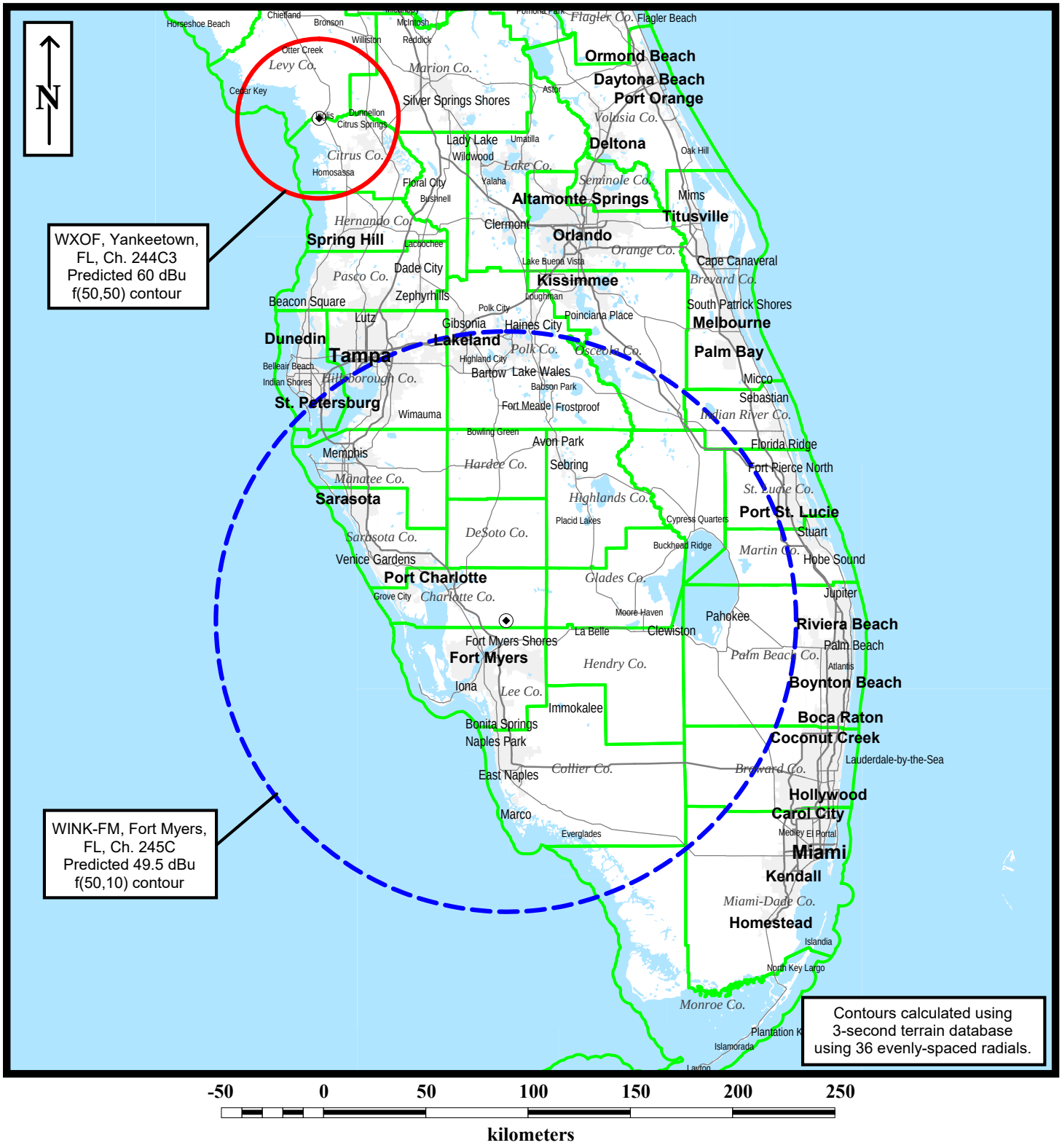
5. According to the *National Radio Systems Committee, NRSC-G202, 'FM IBOC Total Digital Sideband Power for Various Configurations*,' the total integrated power for -10 dBc/-14 dBc asymmetrical side-band operation in service mode MP1 is -11.6 dBc, which is equivalent to total integrated digital power of 7 kW. The proposed total digital transmitter power output (TPO) is 1.8 kW. Considering all system losses and antenna gain, the nominal non-directional total integrated digital ERP is calculated to be 7 kW. The analog TPO is 25.5 kW, which results in a nominal analog ERP of 100 kW.

6. The applicant certifies that the proposed digital operation will comply with the latest transmission system specifications of the Ibiquity HD Radio System.

Louis R. du Treil, Jr.

du Treil, Lundin & Rackley, Inc.
5120 Station Way
Sarasota, Florida 34233

August 10, 2020



WINK-FM -10 dBc IBOC INTERFERENCE ANALYSIS MAP FOR LOWER SIDEBAND (CHANNEL 244) PROTECTION

duTreil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 2

FM Inquiry LMS

FM BROADCAST STATIONS WITHIN 300 KM OF WINK-FM

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

Listed stations are within 300 km of the point at 026-48-02.2 081-45-47.3.

Callsign	*Chan.*	*Class*	*Service*	*Status*	*City*			*State*	*Latitude*	*Longitude*	*Distance (km)*
ARN		*DA*	*Antenna ID*	*Rotation*	*ERP (kW)*	*HAAT (m)*	*RCAMSL (m)*		*Rec. Type*	*Facility ID*	*Bearing (deg)*
WXOF	244	C3	FM	L2C	YANKEETOWN			FL	029-01-18.9	082-41-19.4	262.47
BLH-20121218AAC		NDIR			14.5	132	135		C	47881	340