

WBTJ

Richmond, Virginia

Facility ID No.:74168

Comprehensive Engineering Statement

It is proposed to locate WBTJ upon a tower identified by Antenna Structure Registration (“ASR”) number 1018227, using a directional antenna system with a center of radiation 237 meters above ground level operating with a maximum effective radiated power of 14.5 kilowatts. With the exception of first adjacent WJFK-FM, and co-channel WWMX, WBTJ will be fully spaced in accordance with Section 73.207 to all known facilities and allocations from this location.

A spacing study from the proposed location is attached below as Table 1. The “short spacings” with WJFK-FM and WWMX have existed since prior to November 16, 1964, and have remained continuous since that time¹. This proposal is compliant with Section 73.213(a) as this proposal will not create any new interference, and the total area and population now receiving interference will be reduced. Figure 1 demonstrates, in accordance with the procedure in 72.213, the appropriate contours with WJFK-FM, Figure 2 demonstrates the appropriate contours with WWMX. As can be seen no new interference is created, and the existing areas of interference are reduced or eliminated. No new areas of interference are created by this proposal, so no service will be lost due to interference creation. It is in the public interest that WBTJ be allowed to modify its facility as proposed.

The RF environment at the proposed location is made complex due to the co-location of several full-power digital television facilities, and, the choice of antenna has not been finalized at this time, for these reasons the licensee will make power density measurements for filing with the application for license, which will demonstrate compliance with 73 CFR 1.1306.

¹ WBTJ was licensed to Richmond, Virginia in May 1957; WJFK-FM was licensed to Manassas, Virginia on June 21, 1961; WWMX was licensed to Baltimore, Maryland on June 30, 1960.

Table 1. Spacing at Proposed Location

ComStudy 2.2 search of channel 293 (106.5 MHz Class B) at 37-30-45.0 N, 77-36-05.7 W.										
Callsign	State	City	Freq	Chanl	ERP_w	Class	Status	Dist_km	Sep	Clr
WBTJ	VA	RICHMOND	106.5	293	4000	B	LIC	8.56	241	-232.4
WWMX	MD	BALTIMORE	106.5	293	8300	B	LIC	218.83	241	-22.2
WJFK-FM	VA	MANASSAS	106.7	294	22500	B	LIC	154.76	169	-14.2
WAFX	VA	SUFFOLK	106.9	295	100000	C	LIC	108.9	105	3.9
WAFX	VA	SUFFOLK	106.9	295	100000	C	LIC	108.9	105	3.9
WAFX	VA	SUFFOLK	106.9	295	1000	C	APP	108.9	105	3.9
WAFX	VA	SUFFOLK	106.9	295	0	C	USE	108.78	105	3.8
WSFL-FM	NC	NEW BERN	106.5	293	0	C1	USE	275.17	270	5.2
WSFL-FM	NC	NEW BERN	106.5	293	100000	C1	LIC	275.17	270	5.2
WSFL-FM	NC	NEW BERN	106.5	293	13500	C1	LIC	275.17	270	5.2
WKVK	NC	SEMORA	106.7	294	50000	C2	LIC	186.87	169	17.9
861126NF	NC	SEMORA	106.7	294	0	C2	USE	186.87	169	17.9
WCNR*	VA	KESWICK	106.1	291	0	A	USE	89.59	69	20.6

Figure 1. WJFK-FM

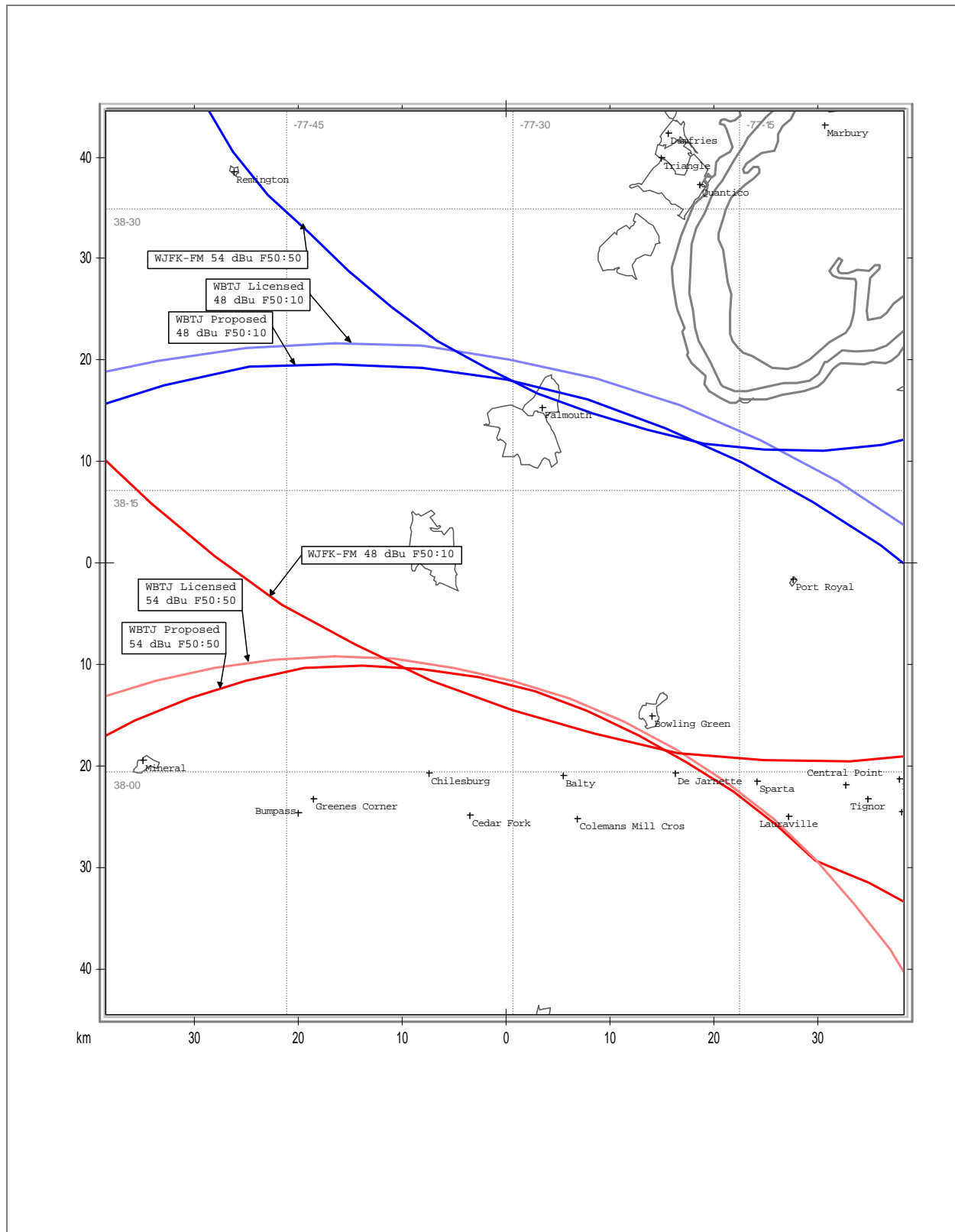


Figure 2. WWMX

