



ENGINEERING STUDY

WSCL(FM)

Application for a Minor License Modification

Channel 208B (89.5MHz)

Salisbury, MD

Facility ID 58660

June 2023

WSCL (FM)
Application for a Minor License Modification

TECHNICAL STATEMENT

This technical statement and attached exhibits were prepared on behalf of Salisbury University, licensee of radio station WSCL (FM), Channel 208B, Salisbury, MD. WSCL seeks to increase power from 36kW to 45kW at their current tower location. This replaces the just expired CP for the same exact facility. Salisbury University was unable to complete this project due to COVID-related disruptions and logistical issues but expects to be able to proceed in a timely manner going forward.

ALLOCATION

The proposed operation will utilize a non-directional antenna and will meet all contour protection requirements toward other stations. The allocation study attached as Exhibit A indicates that four facilities are close enough to warrant close examination, WNJB (207A), WYPA (208A), WPFW (207B) and WXMD (209A) Lic and CP. The map demonstrating compliance is attached as Exhibit B. It is noted that all contours to and from each facility noted have been computed using FCC 30 second terrain data. Exhibit B1 demonstrates that the closest interfering contour, WSCL (208B) to WNJB (207A) does not overlap with the protected WNJB 60dBu contour. WXMD had obtained a construction permit to expand its facility, and although there is interfering contour overlap from WSCL to the WXMD 60dBu CP, the overlap is entirely over water.

The proposed facility is not within 320km of any common border between the US and Mexico or Canada.

Exhibit C demonstrates that the proposed 60dBu noncommercial station's contour will completely encompass the Salisbury, MD Community of License.

Proposed Facility Specifications

Coordinates (NAD83)	38°-40'-00" N Latitude, 75°-34'-59" W Longitude
Tower ASR	1049463
Tower Overall AGL	158.5m
Site AMSL	8.8m
Antenna COR AGL	136m
Antenna COR AMSL	144.8m
Antenna HAAT	135.7m
Antenna Pattern	NON-Directional
Proposed Antenna	ERI SHPX-5
ERP	45kW

TV CHANNEL 6 PROTECTION

The proposed facility will have no impact on any full-power TV channel 6 facility.

ENVIRONMENTAL CONSIDERATIONS

The proposed WSCL antenna will operate at a maximum power level of 45kW H+V and will operate at 136m AGL. WSCL proposes to operate with a 5-bay, full-wave spaced non-directional antenna. Based upon the FCC online calculator "FM Model"¹ Power Density vs. Distance calculator using an EPA Type 3 Opposed U Dipole antenna, the maximum power density at 2m AGL is expected to be 12.7μW/cm² at 47 meters from the tower base, or 6.5% of the permitted 200 μW/cm² limit for uncontrolled exposure. There are no tall buildings within 500m of the proposed tower and there are no other non-excluded facilities operating on the tower. Based upon the preceding, it is believed that the modified WSCL-FM facility will be in compliance with environmental requirements.

¹ <https://www.fcc.gov/general/fm-model>

Radio station WSCL (FM) along with other users at the site will maintain an occupational safety policy and agrees to reduce power or cease operation during periods of maintenance to avoid potentially harmful exposure of personnel to non-ionizing RF radiation.

Respectfully Submitted

A handwritten signature in cursive script, reading "Bert Goldman". The signature is written in dark ink and is positioned above the printed name and title.

Bert Goldman
Technical Consultant

EXHIBIT A- Allocation Study

ComStudy 2.2 search of channel 208 (89.5 MHz Class B) at 38-40-00.0 N, 75-34-59.0 W.

CALL	CITY	ST CHN CL	DIST	SEP	BRNG	CLEARANCE
NCE-APP	SHARPTOWN	MD 210 A	22.78	69.00	220.8	-16.85 dB Note 1
WXMD-CP	CALIFORNIA	MD 209 B1	97.57	145.00	249.1	-4.85 dB Exhibit B*
WNJB-FM	BRIDGETON	NJ 207 A	95.45	113.00	22.5	-0.00 dB Exhibit B
WYPA	CHERRY HILL	NJ 208 A	147.46	178.00	20.1	0.69 dB Exhibit B
WXMD	CALIFORNIA	MD 209 B1	97.57	145.00	249.1	1.54 dB Exhibit B
WPFW	WASHINGTON	DC 207 B	134.47	169.00	283.4	1.85 dB Exhibit B
WTMD	TOWSON	MD 209 B1	120.33	145.00	313.2	2.23 dB
WLJV	SPOTSYLVANIA	VA 208 B1	173.94	211.00	255.2	3.35 dB
WITF-FM	HARRISBURG	PA 208 B	216.72	241.00	329.8	5.14 dB
WITF-FM	HARRISBURG	PA 208 B	216.72	241.00	329.8	5.45 dB
WHRV	NORFOLK	VA 208 B	221.56	241.00	201.7	6.26 dB
WGLS-FM	GLASSBORO	NJ 209 A	116.77	113.00	12.0	6.47 dB
WNJN-FM	ATLANTIC CITY	NJ 209 A	117.59	113.00	41.0	8.66 dB
NCE-APP	NASSAWADOX	VA 207 A	129.48	113.00	192.9	11.54 dB
WRTJ	COATESVILLE	PA 207 A	151.99	113.00	352.6	14.40 dB
WWCJ	CAPE MAY	NJ 206 B1	87.27	71.00	54.0	14.98 dB
WSOU	SOUTH ORANGE	NJ 208 A	257.35	178.00	26.0	17.45 dB
WWPJ	PEN ARGYL	PA 208 A	244.66	178.00	5.6	17.85 dB
WJPH	WOODBINE	NJ 210 A	93.05	69.00	42.6	18.31 dB
WRDV	WARMINSTER	PA 207 A	175.67	113.00	13.3	19.20 dB
NCE-APP	HYATTSVILLE	MD 206 A	115.32	69.00	284.2	20.29 dB
WRIQ	CHARLES CITY	VA 209 B	202.02	169.00	231.7	21.45 dB
WARS	FARMVILLE	VA 208 B1	289.21	211.00	239.1	21.87 dB
WOEL-FM	ELKTON	MD 210 A	105.67	69.00	346.9	23.06 dB

LMS DATA AS OF 6/12/2023

NOTE 1- Sharptown 210A has filed for a waiver to generate non-compliant 2nd adjacent interference to WSCL. That application is ungrantaable as it would cause impermissible interference to WSCL within the current WSCL protected 60dBu contour.

* Overlap is over water

EXHIBIT B Allocation Contours

WSCL, 208B Salisbury, MD Allocation Contours (45kW @ 136m AGL)

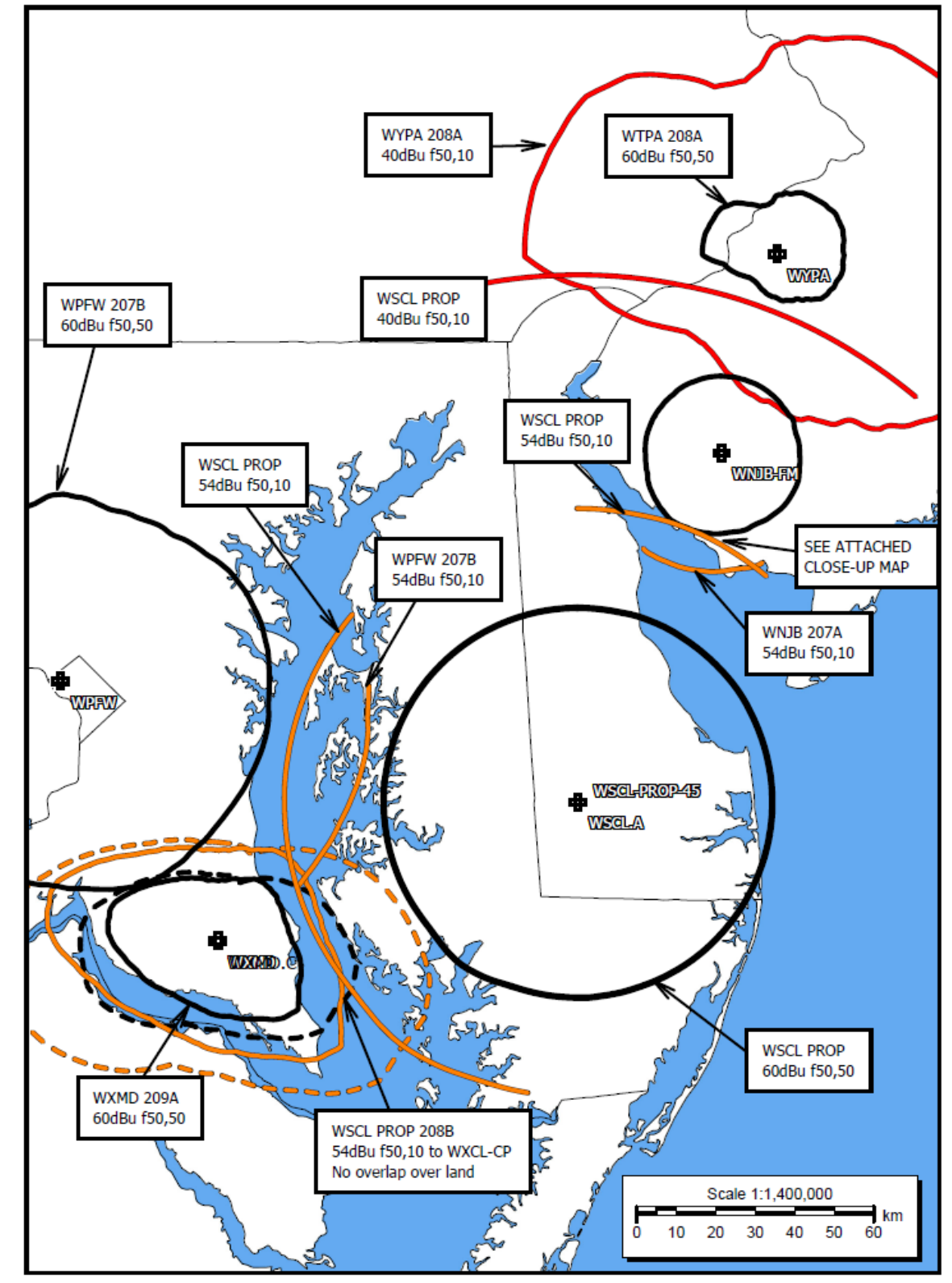


EXHIBIT B1 Allocation Contours to WNJB (207A)

Licensed Vs Proposed WSCL (45kW @ 136m AGL)

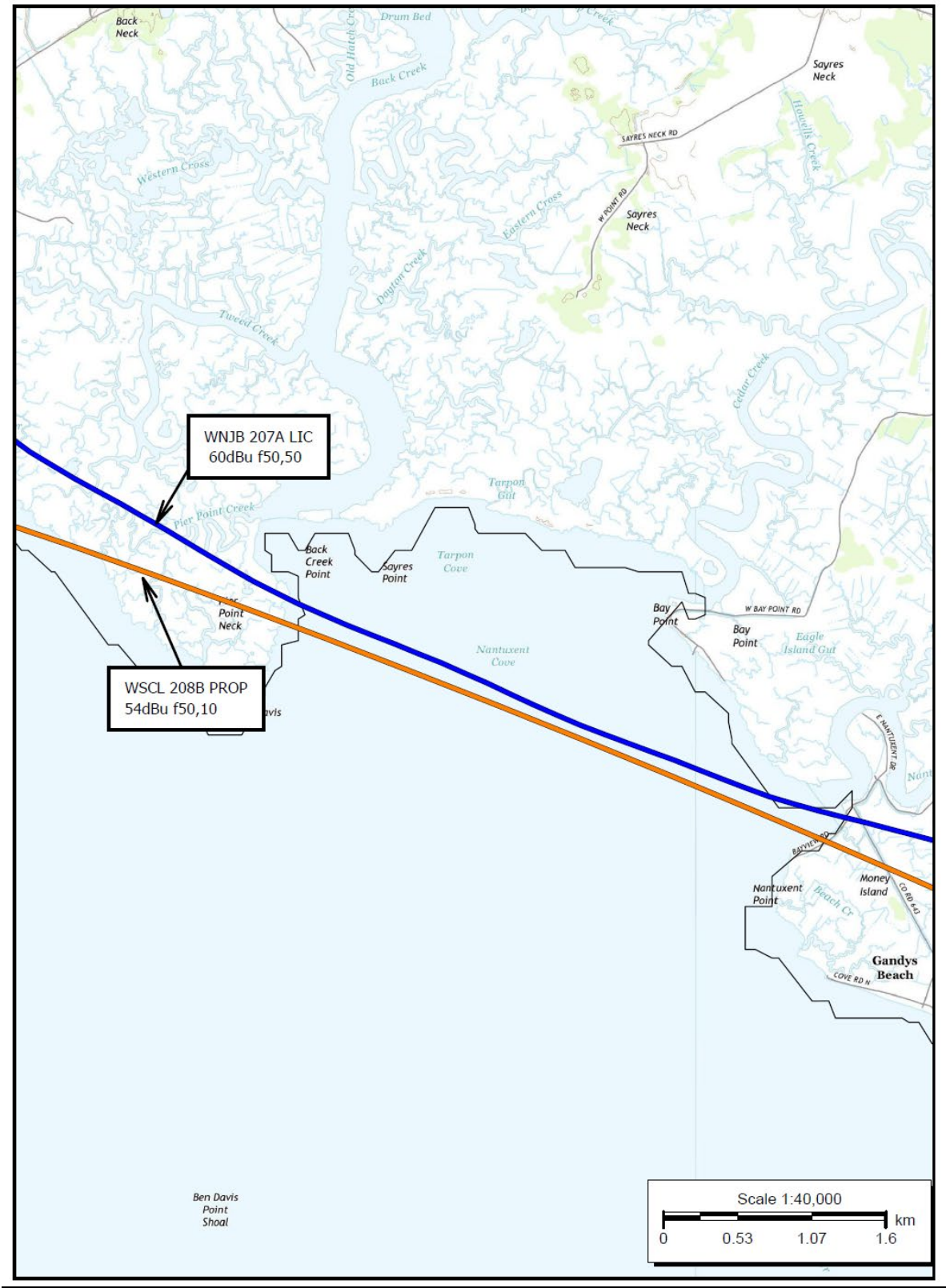


EXHIBIT C Community Coverage, Salisbury, MD

WSCL (36kW @ 136m HAAT) VS 45kW, Community Coverage

