

August 2023
FM Translator W222BV
Stroudsburg, PA Channel 222D
Request for *Mattoon* Waiver

Section 74.1233(a)(1) of the Commission's Rules states that any change in a translator's antenna location where the proposed 60 dBu contour would not continue to cover some portion of the previously-authorized 60 dBu contour will be processed as a major change. FM translator major change applications may only be filed during a designated filing window.

The instant application seeks to relocate the transmitter site for W222BV as a minor modification and in a single step, despite a lack of overlap between the licensed and proposed 60 dBu contours. For the reasons below, it is believed that a waiver of the Commission's Rules to allow processing of this proposal as a minor change application would be in the public interest, and grant would be in accordance with applicable precedent.

This type of waiver is commonly referred to as a *Mattoon* waiver, after the case in which the Commission granted a similar waiver request. See *The Cromwell Group, Inc. of Illinois*, Letter, 26 FCC Rcd 12685 (MB 2011) ("*Mattoon*"). *Mattoon* waivers have been granted where an applicant has demonstrated that: 1) it does not have a history of filing "serial" minor modification applications; 2) the proposed facility is mutually exclusive to its licensed facility; 3) the proposed move does not implicate the concerns raised by the Commission in the recent orders in the LPFM docket; and 4) the translator will rebroadcast an AM station.

No History of Filing Serial Modifications

Penn Jersey Educational Radio Corporation ("PJERC") does not have a history of filing serial minor modification applications in an effort to evade the Commission's minor change rule for FM translators, and has not previously attempted to move this translator's antenna location to the proposed site via serial minor modification applications.

Proposed Facility is Mutually Exclusive to the Licensed Facility

As is demonstrated by the attached cochannel allocation study map, the 40 dBu F(50,10) interfering contour from the proposed W222BV facility overlaps the 60 dBu F(50,50) protected contour of the translator's licensed facility.

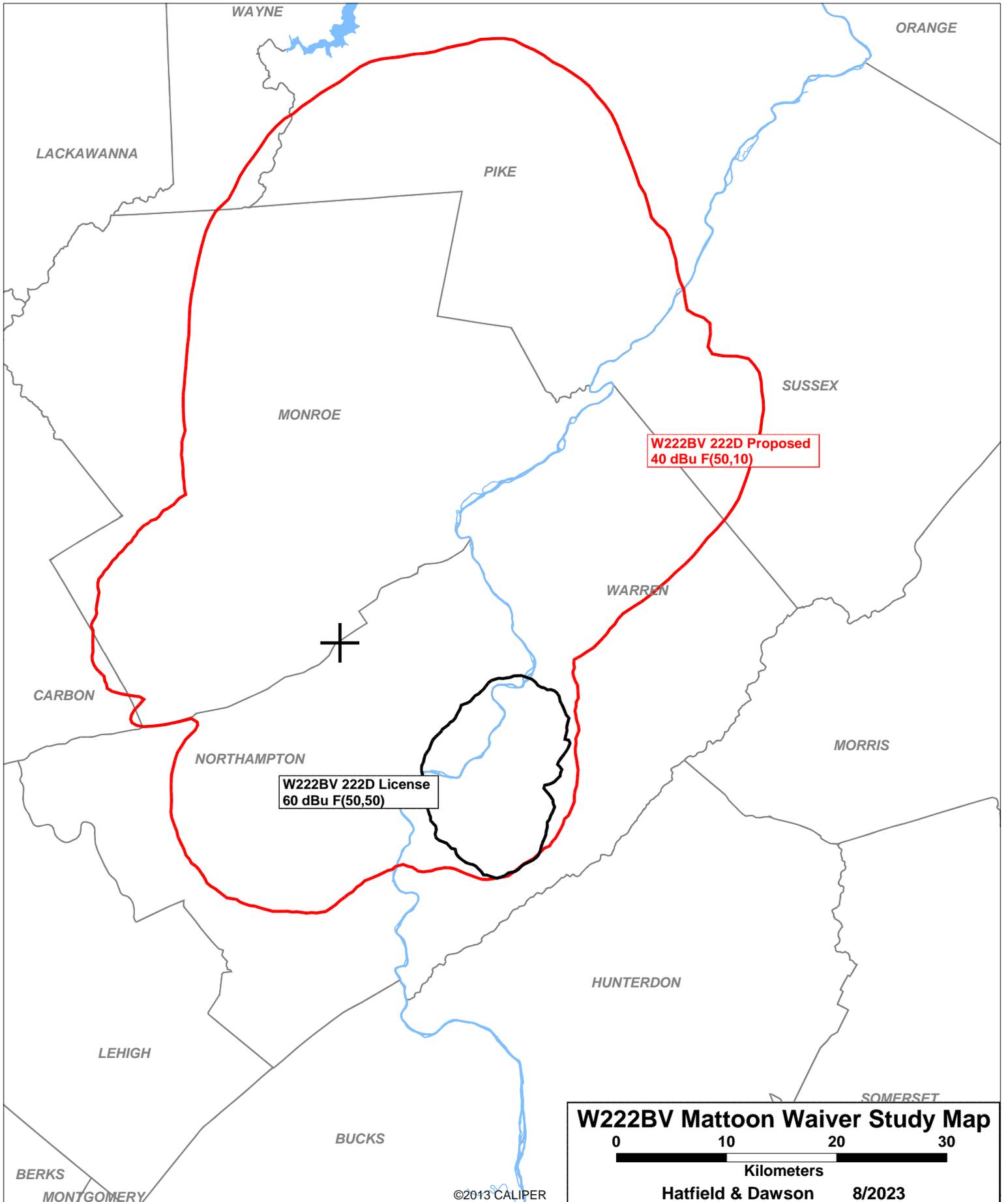
Proposed Facility Does Not Implicate the Concerns in the LPFM Docket

The LPFM filing window has passed, and this proposal does not conflict with any pending or authorized LPFM facility. Therefore, the proposal does not implicate the concerns raised in the LPFM proceeding.

Rebroadcast of an AM Station

PJERC proposes to utilize this translator to rebroadcast the signal of AM station WEST, which operates on 1400 kHz at Easton, Pennsylvania. The attached contour map demonstrates that the translator's proposed 60 dBu contour is completely contained within the larger of the daytime 2 mV/m contour of WEST, or a 40 km radius around the WEST transmitter site.

Therefore, the instant application complies with the waiver standard established in *Mattoon*, and PJERC respectfully requests waiver of §74.1233(a)(1) to the extent necessary to treat this application as a minor change application.



W222BV 222D Proposed
40 dBu F(50,10)

W222BV 222D License
60 dBu F(50,50)

W222BV Mattoon Waiver Study Map

0 10 20 30

Kilometers

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Stroudsburg, PA Channel 222D
Allocation Study**

Allocation Study

The attached spacing study shows the spacing between the proposed translator site and the location of cochannel and adjacent channel stations and proposals. This study was made with the Commission's Class A spacing requirements, and individual situations were examined to determine the lack of prohibited contour overlap per the requirements of §74.1204 of the Rules. The attached allocation study map demonstrates compliance with the Commission's Rules for protection of FM broadcast stations and FM translators as outlined in §74.1204.

The attached spacing study demonstrates compliance with §73.207 of the Commission's Rules regarding spacing restrictions to stations which are 53 or 54 channels removed from the proposed operation.

WXPJ 220B1 Hackettstown

The proposed translator transmitter site is located within the 60 dBu protected contour of second-adjacent channel station WXPJ. The following calculation, performed using the *Living Way* methodology, demonstrates interference protection to that station.

Protected Station	Distance & Bearing to Proposal	Station ERP and HAAT on that azimuth	Station Field Strength at Proposal	Corresponding Translator Interfering Contour	Distance to Translator Interfering Contour
WXPJ 220B1	32.93 km 276 deg True	5.4 kW 207 meters	63.0 dBu F(50,50)	103.0 dBu	384.4 meters Free Space

The attached map of the proposed transmitter site depicts the 103.0 dBu contour from the proposed facility, depicted for convenience as a circle with a radius of 384.4 meters. There is no population within this contour. Therefore, the proposed facility is believed to satisfy the requirements of §74.1204(d) with respect to WXPJ.

SEARCH PARAMETERS

Channel: 222A 92.3 MHz
 Latitude: 40 53 1.0 (NAD83)
 Longitude: 75 15 42.0
 Safety Zone: 50 km
 Job Title: W222BV AT ASR 1016095

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Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
WBMR LIC	TELFORD PA		219A BLED-20120521ADU	0.500 77.0	40 18 48.4 75 17 27.7	182.2	63.36 32.36	31 CLEAR
WMUH LIC	ALLENTOWN PA		219A BMLEL-19950728KB	0.440 -1.0	40 35 52.3 75 30 36.6	213.5	38.05 7.05	31 CLOSE
WVMW-FM LIC	SCRANTON PA		219A BLED-20151207AKU	1.800 -83.2	41 26 2.2 75 37 53.6	333.3	68.55 37.55	31 CLEAR
WXPJ LIC	HACKETTSTOWN NJ		220B1 BLED-20161018AAS	5.400 167.0	40 51 8.3 74 52 23.6	96.0 SS	32.93 -15.07	48 SHORT
W220CO LIC	CARBONDALE PA		220D BLFT-20010608AAT	0.010 0.0	41 32 34.3 75 27 46.6	347.1	75.13 0.00	0 TRANS
W221DG LIC	EXTON PA		221D BLFT-20170106ACP	0.170 0.0	40 3 31.6 75 35 52.8	197.3	95.93 0.00	0 TRANS
W221CU LIC	ALLENTOWN PA		221D BLFT-20160115AAN	0.010 0.0	40 33 52.4 75 26 23.7	203.0	38.50 0.00	0 TRANS
WQFM LIC	NANTICOKE PA		221A BLH-20000106AAW	0.660 303.0	41 11 11.3 75 51 31.7	304.1 SS	60.44 -11.56	72 SHORT
WNYL LIC	NEW YORK NY		222B BLH-19940204KF	6.000 415.0	40 44 54.3 73 59 8.5	97.6	108.70 -69.30	178 SHORT
WFLY LIC	TROY NY		222B BLH-19871015KA	17.000 259.0	42 38 16.2 73 59 53.4	27.8	221.36 43.36	178 CLEAR
W222BV LIC	HARMONY TOWNSHIP NJ		222D BLFT-20161018ABE	0.010 0.0	40 46 14.3 75 3 50.6	127.0	20.86 0.00	0 TRANS
WHNA LIC	RIVERSIDE PA		222A BLH-20011024AAD	0.930 254.0	40 57 30.3 76 42 51.8	274.4	122.66 7.66	115 CLOSE
WERQ-FM LIC	BALTIMORE MD		222B BLH-20130830ACP	37.000 173.0	39 20 18.4 76 39 58.9	215.3	209.23 31.23	178 CLEAR
W222BY LIC	LAURELDALE PA		222D BLFT-20140402AND	0.090 0.0	40 19 19.3 75 53 33.7	220.7	82.11 0.00	0 TRANS

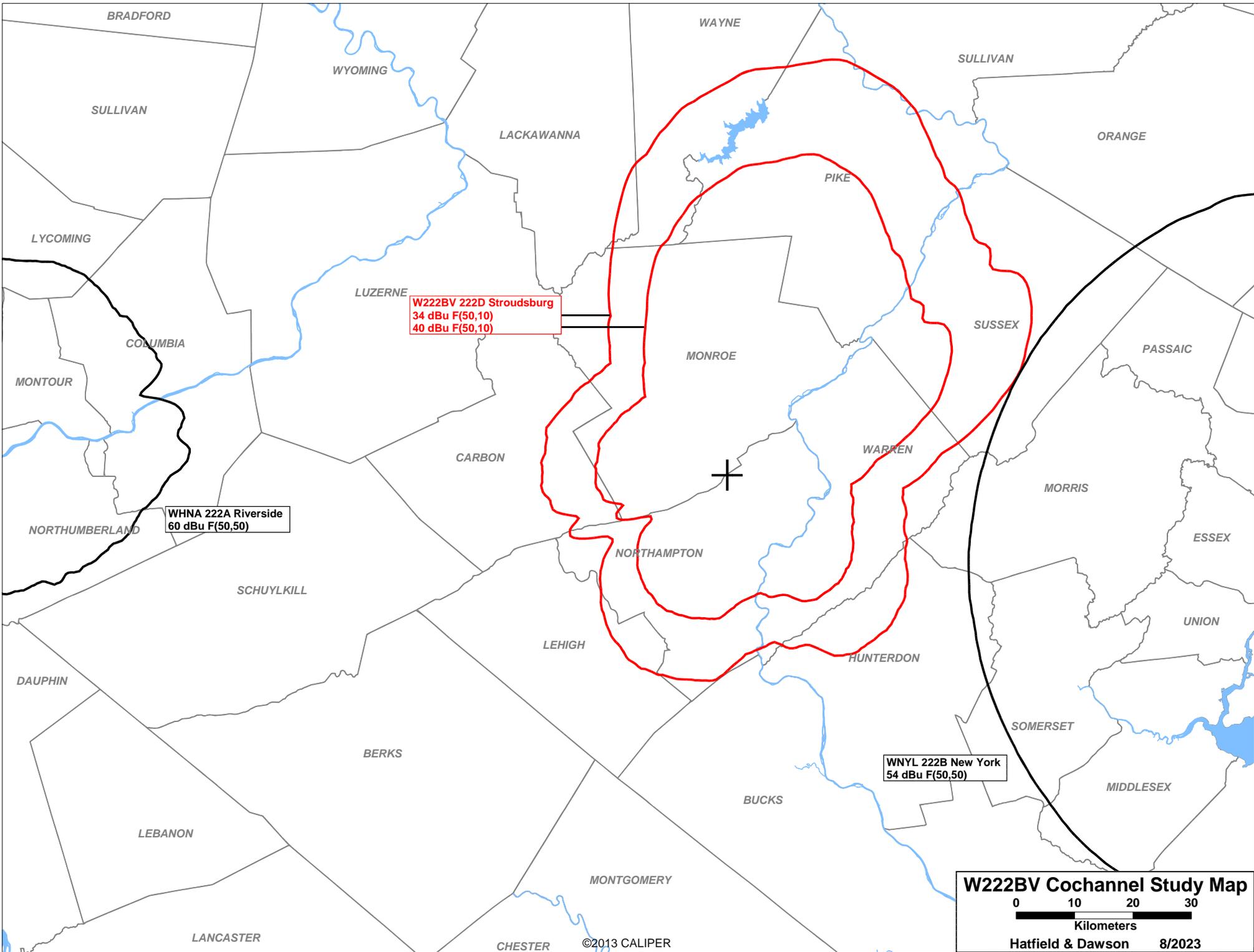
SEARCH PARAMETERS

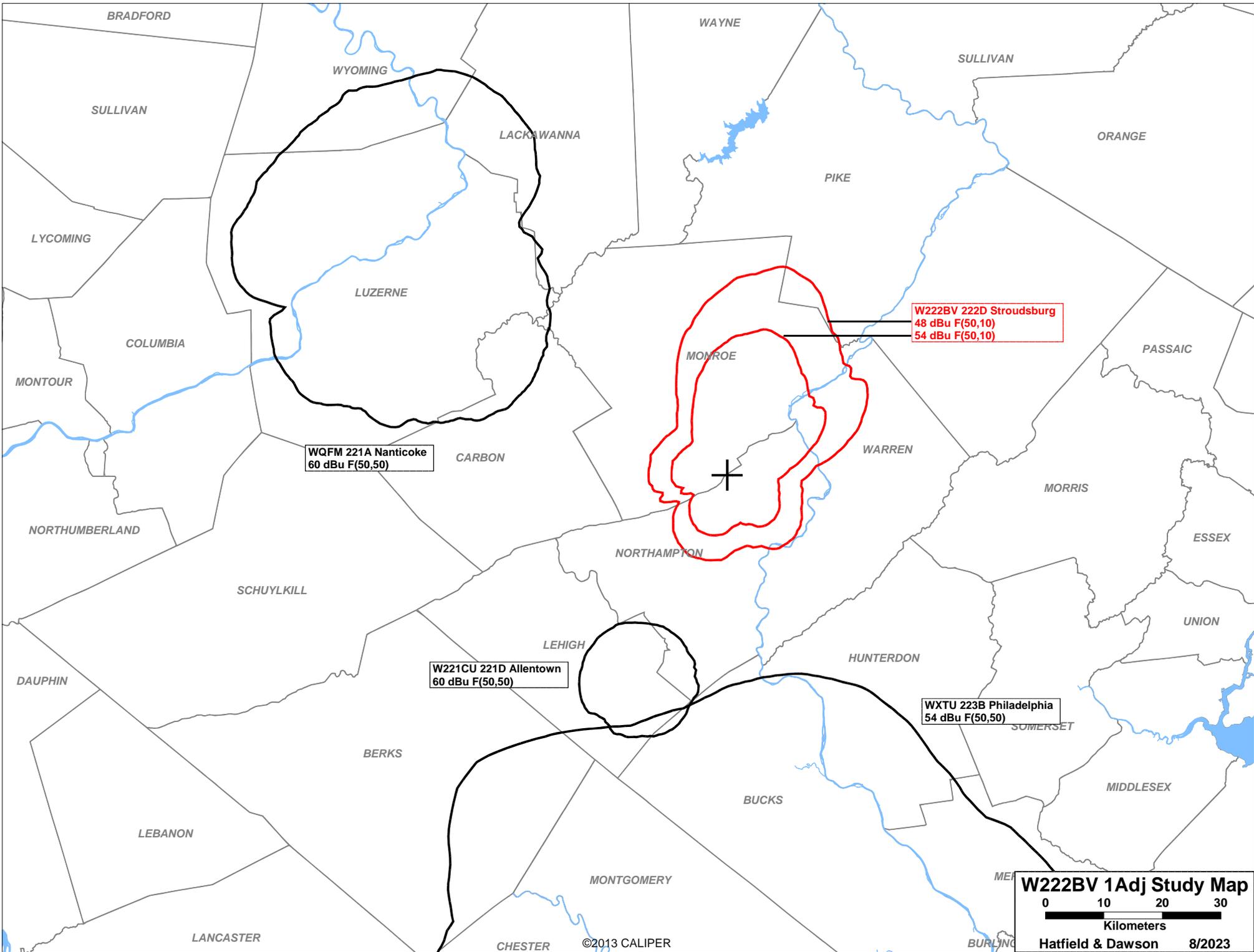
Channel: 222A 92.3 MHz
 Latitude: 40 53 1.0 (NAD83)
 Longitude: 75 15 42.0
 Safety Zone: 50 km
 Job Title: W222BV AT ASR 1016095

Page 2

Call Status	City St	FCC File No.	Channel Freq.	ERP(kW) HAAT(m)	Latitude Longitude	Bearing deg-True	Dist (km)	Req (km)
WXTU LIC	PHILADELPHIA PA	BLH-20031017ACG	223B 92.5	15.000 279.0	DA 40 2 19.4 75 14 12.6	178.7	93.84 -19.16	113 SHORT
W223CC LIC	WILKES-BARRE PA	BLFT-20190211AAR	223D 92.5	0.250 0.0	DA 41 11 1.3 75 52 0.7	303.5	60.83 0.00	0 TRANS
W223DB LIC	LIBERTY NY	0000152985	223D 92.5	0.250 0.0	DA 41 48 4.2 74 47 3.5	21.2	109.46 0.00	0 TRANS
W224AU LIC	ALLENTOWN PA	BLFT-20160209ABL	224D 92.7	0.007 0.0	DA 40 34 18.1 75 25 47.1	202.3	37.44 0.00	0 TRANS
W224AS LIC	WASHINGTON NJ	BLFT-20130627AAU	224D 92.7	0.150 0.0	DA 40 48 28.3 74 57 30.6	108.2	26.92 0.00	0 TRANS
W224CW LIC	FRANKLIN TOWNSHIP NJ	BLFT-20160517ABO	224D 92.7	0.105 0.0	DA 40 28 45.0 74 28 28.9	123.9	80.27 0.00	0 TRANS
WMGS LIC	WILKES-BARRE PA	BLH-19990506KB	225B 92.9	5.300 422.0	41 10 56.3 75 52 20.7	303.2	61.14 -7.86	69 SHORT
W225CF LIC	READING PA	BLFT-20170424AAA	225D 92.9	0.099 0.0	DA 40 21 15.3 75 53 53.7	222.6	79.73 0.00	0 TRANS
W276DG LIC	STROUDSBURG PA	0000117650	276D 103.1	0.250 0.0	DA 40 56 53.3 75 9 36.6	49.9	11.16 0.00	0 TRANS

===== END OF FM SPACING STUDY FOR CHANNEL 222 =====





WQFM 221A Nanticoke
60 dBu F(50,50)

W221CU 221D Allentown
60 dBu F(50,50)

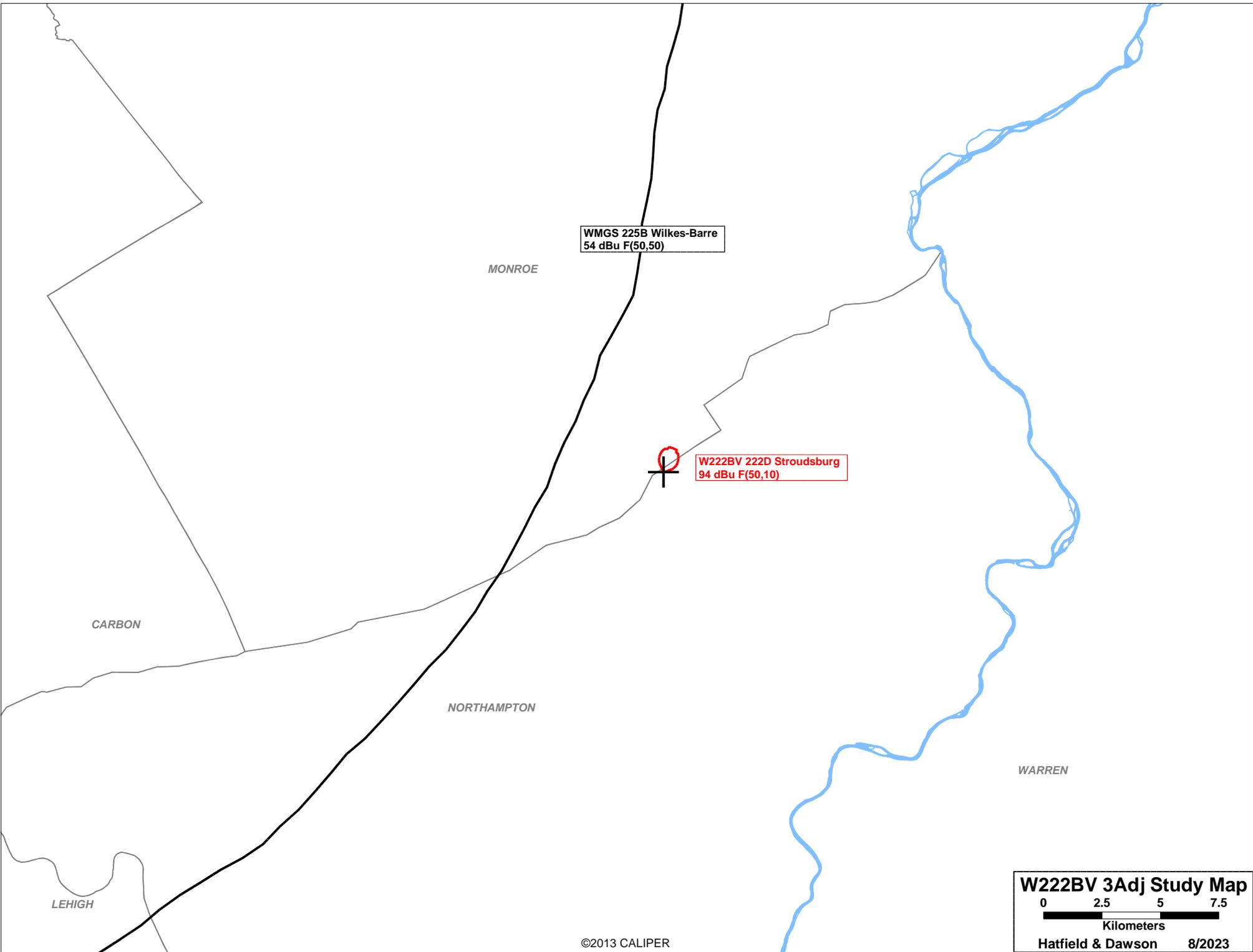
W222BV 222D Stroudsburg
48 dBu F(50,10)
54 dBu F(50,10)

WXTU 223B Philadelphia
54 dBu F(50,50)

W222BV 1Adj Study Map



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WMGS 225B Wilkes-Barre
54 dBu F(50,50)

W222BV 222D Stroudsburg
94 dBu F(50,10)

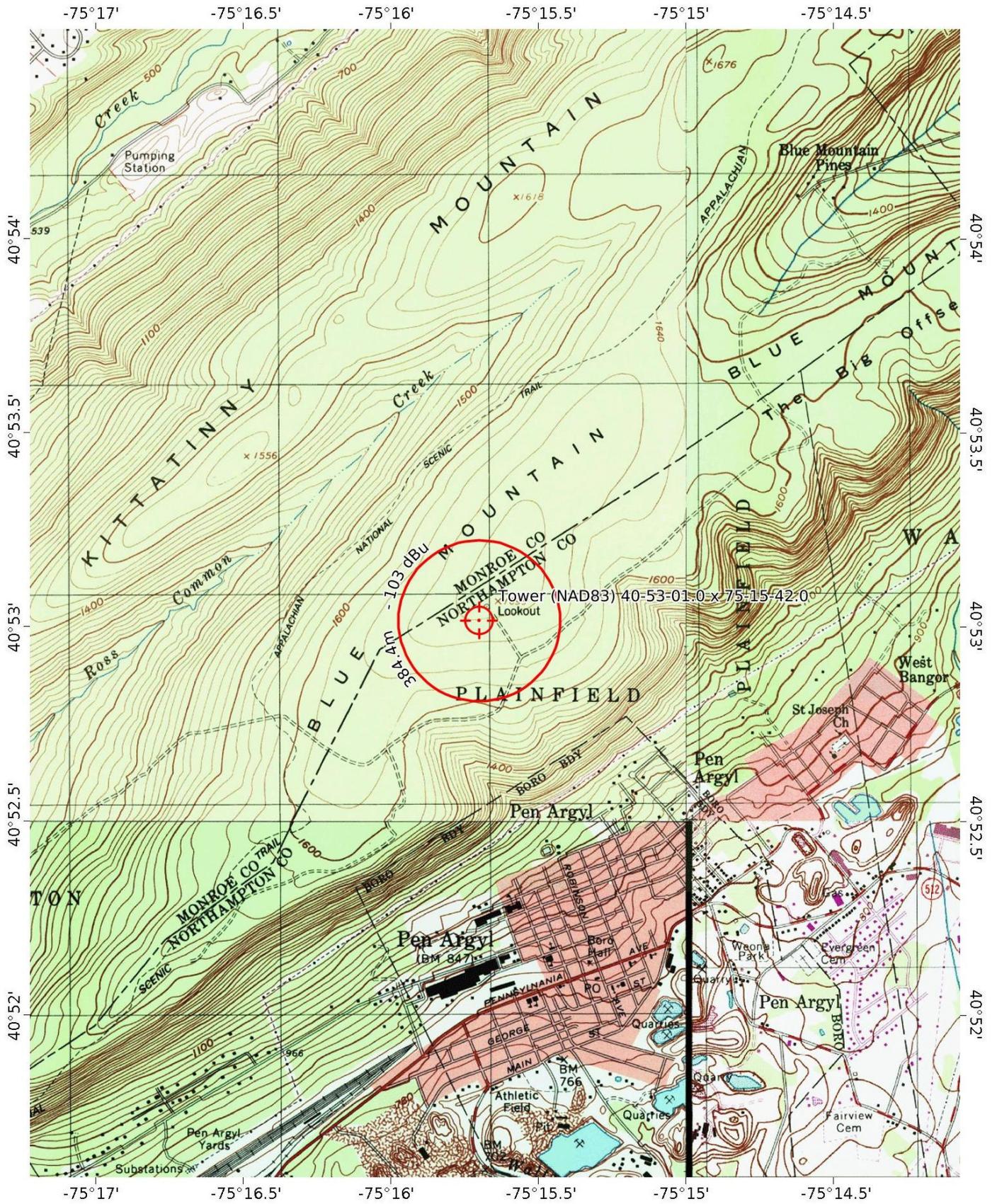
W222BV 3Adj Study Map

0 2.5 5 7.5

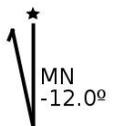
Kilometers

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Mercator Projection
 WGS84
 UTM Zone 18T
 CALTOPO



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Stroudsburg, PA Channel 222D
RF Exposure Study

Facilities Proposed

The proposed operation will be on Channel 222D (92.3 MHz) with a maximum lobe effective radiated power of 60 watts. Operation is proposed with an antenna to be mounted on an existing tower on Blue Mountain, with FCC Antenna Structure Registration Number 1016095.

RF Exposure Calculations

The power density calculations shown below were made using the techniques outlined in OET Bulletin No. 65. "Ground level" calculations in this report have been made at a reference height of 2 meters above ground to provide a worst-case estimate of exposure for persons standing on the ground in the vicinity of the tower. The equation shown below was used to calculate the ground level power density figures from each antenna.

$$S(\mu W / cm^2) = \frac{33.4 \times AdjERP(Watts)}{D^2}$$

Where: *AdjERP(Watts)* is the maximum lobe effective radiated power times the element pattern factor times the array pattern factor.

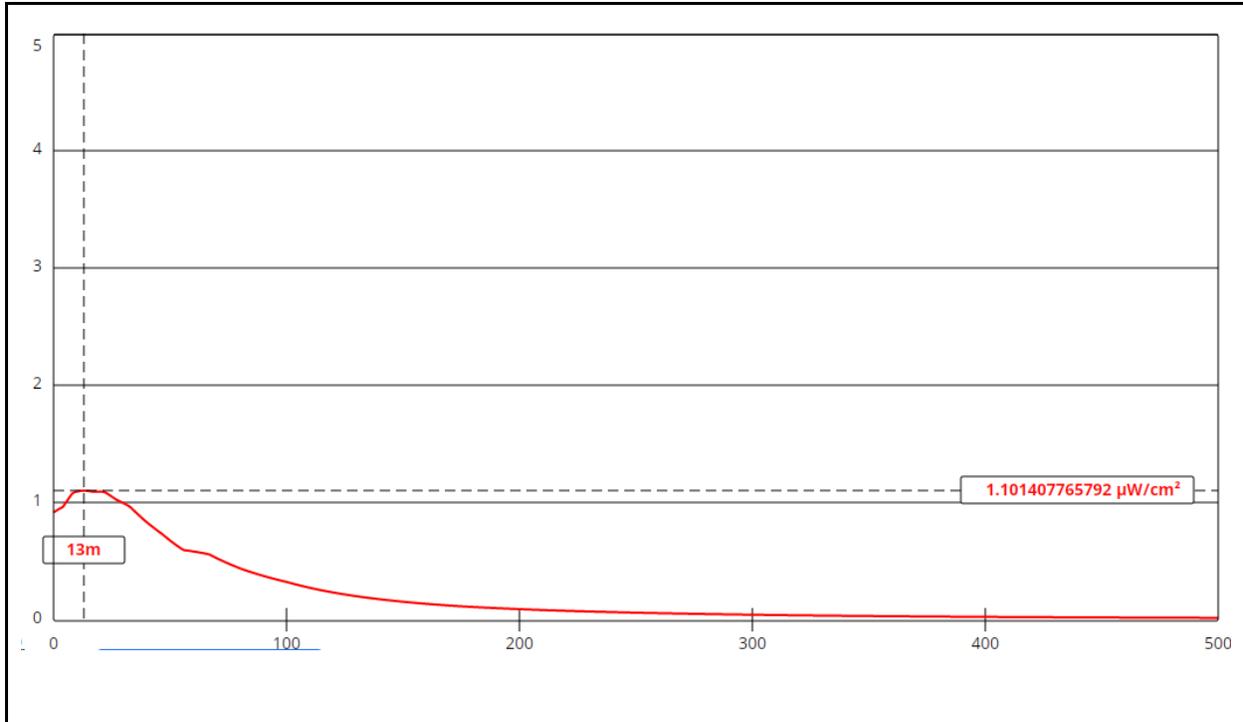
D is the distance in meters from the center of radiation to the calculation point.

Ground level power densities have been calculated for locations extending from the base of the tower to a distance of 500 meters. Values past this point are increasingly negligible.

The Commission's FMModel software does not include an element model to match the Scala CA5-FM/CP/RM antenna. Therefore, calculations of the power density produced by the proposed antenna system assume a Type 1 element pattern, which is the "worst case" element pattern in FMModel. The highest calculated ground level power density occurs at a distance of 13 meters from the base of the antenna support structure. At this point the power density is calculated to be 1.1 $\mu W/cm^2$, which is 0.6% of the FCC standard for uncontrolled environments.

These calculations show that the maximum calculated power density produced at two meters above ground level by the proposed operation of W222BV alone is less than 5% of the applicable FCC exposure limit at all locations between 1 and 500 meters from the base of the antenna support structure. Section 1.1307(b)(3) of the Commission's Rules excludes applications for new facilities or modifications to existing facilities from the requirement of preparing an environmental assessment when the calculated emissions from the applicants proposed facility are predicted to be less than 5% of the applicable FCC exposure limit. Therefore, the proposed facility is in compliance with Section 1.1301 *et seq* and no further analysis of RF exposure at this site is required in this application.

The permittee/licensee in coordination with other users of the site must reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency exposure in excess of FCC guidelines.



Ground-Level RF Exposure

OET FMModel

W222BV Stroudsburg

Antenna Type: Scala CA5-FM/CP/RM (Type 1)

No. of Elements: 1

Element Spacing: 1.0 wavelength

Distance: 500 meters

Horizontal ERP: 60 watts

Vertical ERP: 60 watts

Antenna Height: 48.8 meters AGL

Maximum Calculated Power Density is 1.1 $\mu\text{W}/\text{cm}^2$ at 13 meters from the antenna structure.

