

TECHNICAL EXHIBIT  
APPLICATION FOR CONSTRUCTION PERMIT  
FM STATION WTKV  
MINETTO, NEW YORK  
CH 288A 4 KW 121 M

Technical Narrative

The technical exhibit of which this narrative is a part was prepared in support an application for a construction permit for FM station WTKV at Minetto, New York. Station WTKV is currently licensed (BLH-19970819KC) to operate on channel 288A (105.5 MHz) at Oswego with an effective radiated power (ERP) of 4 kilowatts (kW) and an antenna height above average terrain (HAAT) of 121 meters.

The purpose of the instant application is to specify a change in the city of license of WTKV from Oswego, New York to Minetto, New York on channel 288A. It is proposed to operate WTKV on channel 288A at Minetto, New York from its existing tower (ASRN 1028674) with the existing technical facilities, namely, a nondirectional antenna maximum ERP of 4 kW and an HAAT of 121 meters. The proposed reallocation to Minetto will comply with the Commission's *Rural Radio* policies.<sup>1</sup> The instant application is being filed under the contingent application rule (Section 73.3517(e)], as grant of this application is contingent on the grant of an application for construction permit for WKRH on channel 293A (106.5 MHz) at Minetto, New York to change its city of license to Fair Haven, New York. The WKRH contingent application is being filed concurrently with this application. The instant application is considered to be a "minor" change in facilities in accordance with Section 73.3573(a)(1)(i) and 73.3573(g).

Response to Paragraph 13 - Allotment

Figure 1 is a separation study for channel 288A operation from the proposed allotment reference site which is also the current WTKV site. As shown, the proposed allotment reference site complies with the minimum distance separation

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<sup>1</sup> See *Policies to Promote Rural Radio Service to Streamline Allotment and Assignment Procedures*, Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rule Making, MB Docket No. 09-52 (RM-11528, FCC 11-28, adopted March 3, 2011), and Second Order on Reconsideration, MB Docket 09-52 (RM-11528, FCC 12-127, adopted October 11, 2012) ("Second Order").

requirements of Section 73.207 for Class A operation on channel 293 towards all existing, authorized and proposed stations with the exceptions of the licensed operation of WTKV and several vacant Canadian allotments. The short-spacing with WTKV's licensed operation establishes mutual exclusivity pursuant to Section 73.3573(g).

With regard to the short-spacings with the vacant Canadian allotments, it is noted that WTKV's licensed operation has been accepted by Canada as a specially negotiated short-spaced Class B1 allotment. Furthermore, as there will be no change in the WTKV site or transmission facilities, the Canadian short-spacings will not change. Thus, it is not necessary to coordinate the instant proposal with Canada.

Figure 2 is a map which demonstrates that the proposed allotment reference point complies with the FCC's city coverage (70 dBu) requirements (Section 73.315) based on (1) the FCC's allotment criteria which presumes operation with maximum Class A facilities (ERP 6 kW/HAAT 100 m) and uniform terrain (i.e. 16 km circle) and (2) based on WTKV's actual facilities and actual terrain.

Response to Paragraph 17 - RFR Hazard Statement

The proposed facilities were evaluated in terms of potential radiofrequency radiation exposure at 2 meters above ground level in accordance with the OST Bulletin No. 65, "Evaluating Compliance With FCC-Specified Guidelines for Human Exposure to Radiofrequency Radiation". This Bulletin provides assistance in determining whether FCC-regulated transmitting facilities, operations or devices comply with limits for human exposure to radiofrequency (RF) electromagnetic fields.

The calculated power density at 2 meters above ground level at the base of the tower was calculated using the appropriate equation contained in the Bulletin. Using a greater than expected vertical relative field value of 0.6 (for angles below 60 degrees downward), the total ERP of 8 kW (H+V) and an antenna center of radiation height above ground level of 128 meters, the calculated power density at two meters above ground level at the base of the tower is 6.1 microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ), or 3 percent of the Commission's recommended

limit applicable to general population/uncontrolled exposure areas (200 uW/cm<sup>2</sup> for FM channel 288).

Access to the transmitting site will be restricted and appropriately marked with warning signs. Furthermore, as this is a multi-user site, procedures will be in effect in the event that workers or other authorized personnel enter the restricted area to ensure worker safety with respect to radio frequency radiation exposure. Such measures include reducing the average exposure by spreading out the work over a longer period of time, wearing "accepted" RFR protective clothing and/or RFR exposure monitors or scheduling work when the stations are at reduced power or shut down.

Finally, it is noted that this technical exhibit only addresses the potential for radiofrequency electromagnetic field exposure.

Response to Paragraph 18 - Community of License Change -  
Section 307(b)

*1. Proposal*

It is proposed to specify a change in the city of license of WTKV from Oswego, New York to Minetto, New York as permitted by the Commission's rules allowing community of license changes by application.

*2. City Populations and Local Service*

Oswego is an incorporated city and has a 2010 U.S. Census population of 18,142 persons. Oswego will not be deprived of its only aural service as 4 other FM and AM stations are assigned to Oswego.<sup>2</sup> Furthermore, Oswego is not located within an urbanized area (see below).

Minetto is a village which has a 2010 U.S. Census population of 1,069 persons. Currently, WKRH is the only aural service assigned to Minetto. However, the proposal to reallocate WKRH from Minetto to Fair Haven will not remove the only aural

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<sup>2</sup> FM stations WWLF-FM, channel 244A, WNYO, channel 205A and WRVO, channel 210B and AM station WSGO, 1440 kHz, are currently assigned to Oswego.

service at Minetto as WTKV will be reallocated from Oswego to Minetto on channel 288A.

*3. 60 dBu Loss Area and Available Aural Services*

As there will be no change in the WTKV transmitter site or transmission facilities, no 60 dBu loss area will be created.

*4. Protected FM and AM Services Available to Minetto*

It has been determined that there are 11 protected FM and AM services available to Minetto as shown on Figure 3.<sup>3</sup> Figure 4 tabulates the FM and AM stations whose contours are shown on Figure 3.

*5. 70 dBu and 60 dBu Coverage*

The following tabulates the land area and 2010 Census population within the 70 dBu and 60 dBu contours for the proposed channel 288A operation at Minetto which are depicted on Figure 5.

Contour	Population (2010 Census)	Area (sq. km)
70 dBu	62,762	590
60 dBu	93,977	1,442

Contour locations calculated in accordance with the provisions of Section 73.313. Population calculated using a computer program that utilizes the 2010 U.S. Census database of population centroids. Area calculated using a root mean square algorithm.

*6. Urbanized Area Considerations*

Figure 6 is a map which depicts the Minetto city limits and the Syracuse, New York Urbanized Area (UA). Also shown is the 70 dBu contour for the proposed channel 288A operation at Minetto. As indicated, no portion of Minetto is

<sup>3</sup> For FM stations, the pertinent primary service contour has been used. For AM stations, the daytime 2 mV/m contour has been used.

located within the Syracuse UA. In addition, the proposed 70 dBu contour does not encompass any portion of the Syracuse UA.

Studies were conducted to determine if any rule-compliant minor modifications could be made on the proposed channel which would provide 70 dBu coverage over 50 percent or more of the Syracuse UA. The studies considered all existing registered towers in the Commission's Antenna Structure Registration database along with unregistered towers currently used by licensed radio stations. In addition, consideration was also given to use of short-spaced sites and directional antenna systems. On this basis, it was determined that only 3 alternate registered tower could potentially be used for the proposed Minetto channel 288A allotment and provide some 70 dBu service to the Syracuse UA, namely ASRN's 1276804, 1063230 and 1007177. However, operation from each of these towers with maximum nondirectional Class A facilities (i.e. best case presumption) would not result in 70 dBu coverage to 50% or more of the Syracuse UA. Therefore, it is apparent that a minor change modification could not be made which would provide 70 dBu coverage over 50 percent of the Syracuse UA.

If there are any questions, or additional information is required, please contact the office of the undersigned.



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## SECTION 73.207 SEPARATION STUDY - WTKV LICENSED SITE/ALLOTMENT REFERENCE SITE

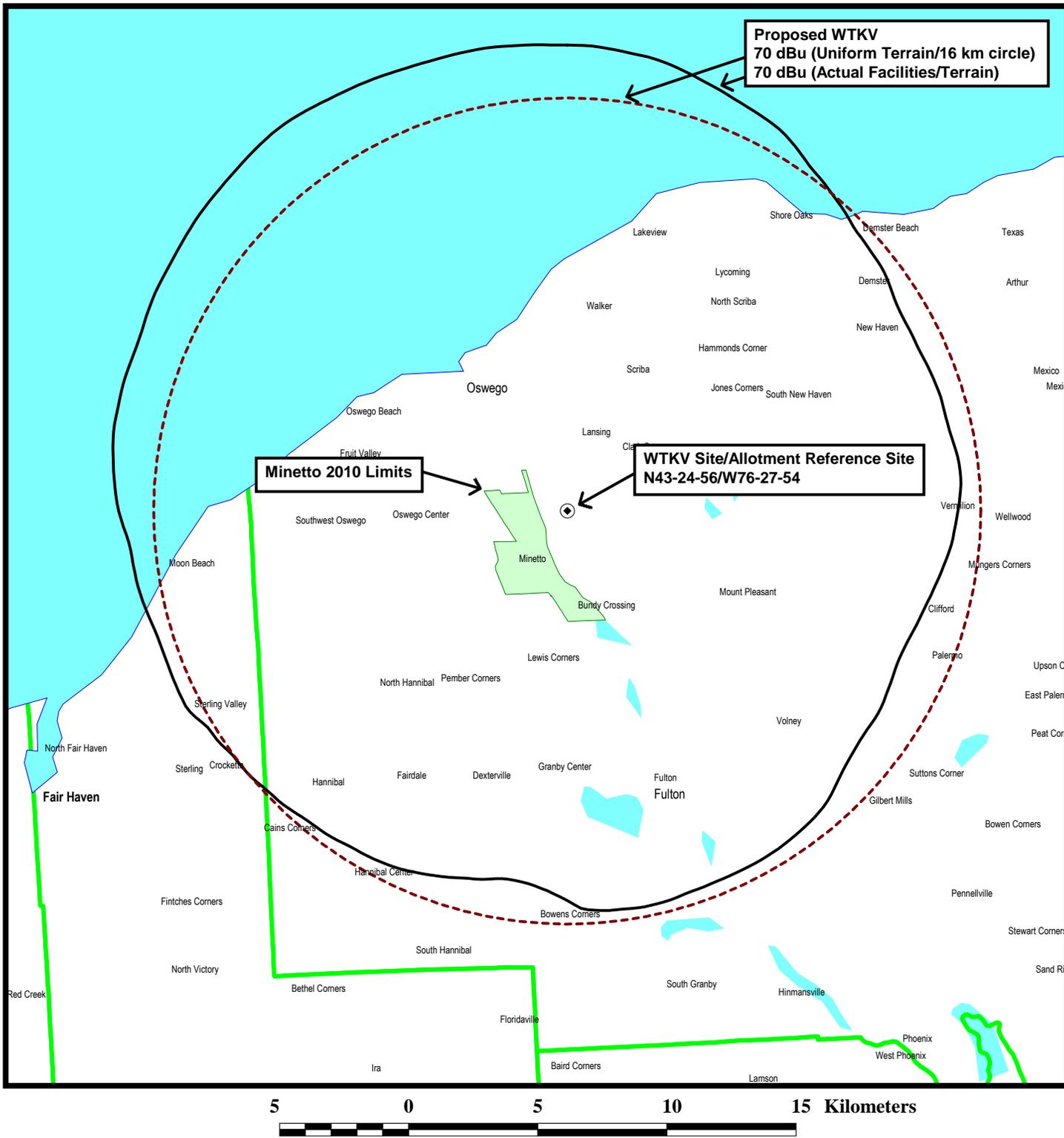
Channel: 288 Coordinates: 043-24-56 076-27-54 (NAD 27)  
 Class: A Buffer Distance: 5 km

Date: 06/27/2013  
 Page: 1 of 1

Callsign	Status	Chan.	Serv.	Freq.	City	State	Latitude	Dist.(km)	Sep.(km)	Spacing(km)
Fac. ID	ARN	Class	DA	Ant. ID	ERP(kW)	HAAT(m)	Longitude	Bear.(deg)	73.215	Comment
WTKV	LIC	288	FM	105.5	OSWEGO	NY	043-24-56	0		
24131	BLH 19970819KC	A	N		4	121	076-27-54	0		
-1		289	FA	105.7	KINGSTON	ON	044-10-02	83.55	168	-84.45
				C1			076-25-40	2.03		<b>SHORT<sup>1</sup></b>
NEW		289	FM	105.7	KINGSTON	ON	044-10-02	83.55	168	-84.45
158681				C1	D	50	076-25-40	2.03		<b>SHORT<sup>1</sup></b>
-1	RM	289	FR	105.7	KINGSTON	ON	044-09-17	82.11	137	-54.89
				B			076-28-23	359.55		<b>SHORT<sup>1</sup></b>
-1	RM	289	FR	105.7	KINGSTON	ON	044-12-29	88.12	137	-48.88
				B			076-24-58	2.53		<b>SHORT<sup>1</sup></b>
96478		289	FA	105.7	KINGSTON	ON	044-14-00	90.89	98	-7.11
				A			076-30-00	358.24		<b>SHORT<sup>1</sup></b>
-1	RM	289	FR	105.7	KINGSTON	ON	044-14-00	90.89	98	-7.11
				A			076-30-00	358.24		<b>SHORT<sup>1</sup></b>
-1	RM	289	FR	105.7	KINGSTON	ON	044-16-49	96.09	98	-1.91
				A			076-29-48	358.5		<b>SHORT<sup>1</sup></b>

<sup>1</sup> WTKV has been accepted by Canada as a specially negotiated short-spaced Class B1 allotment. Furthermore, as there will be no change in the WTKV site or transmission facilities, the Canadian short-spacings will not change. Thus, it is not necessary to coordinate the instant proposal with Canada.

Figure 2

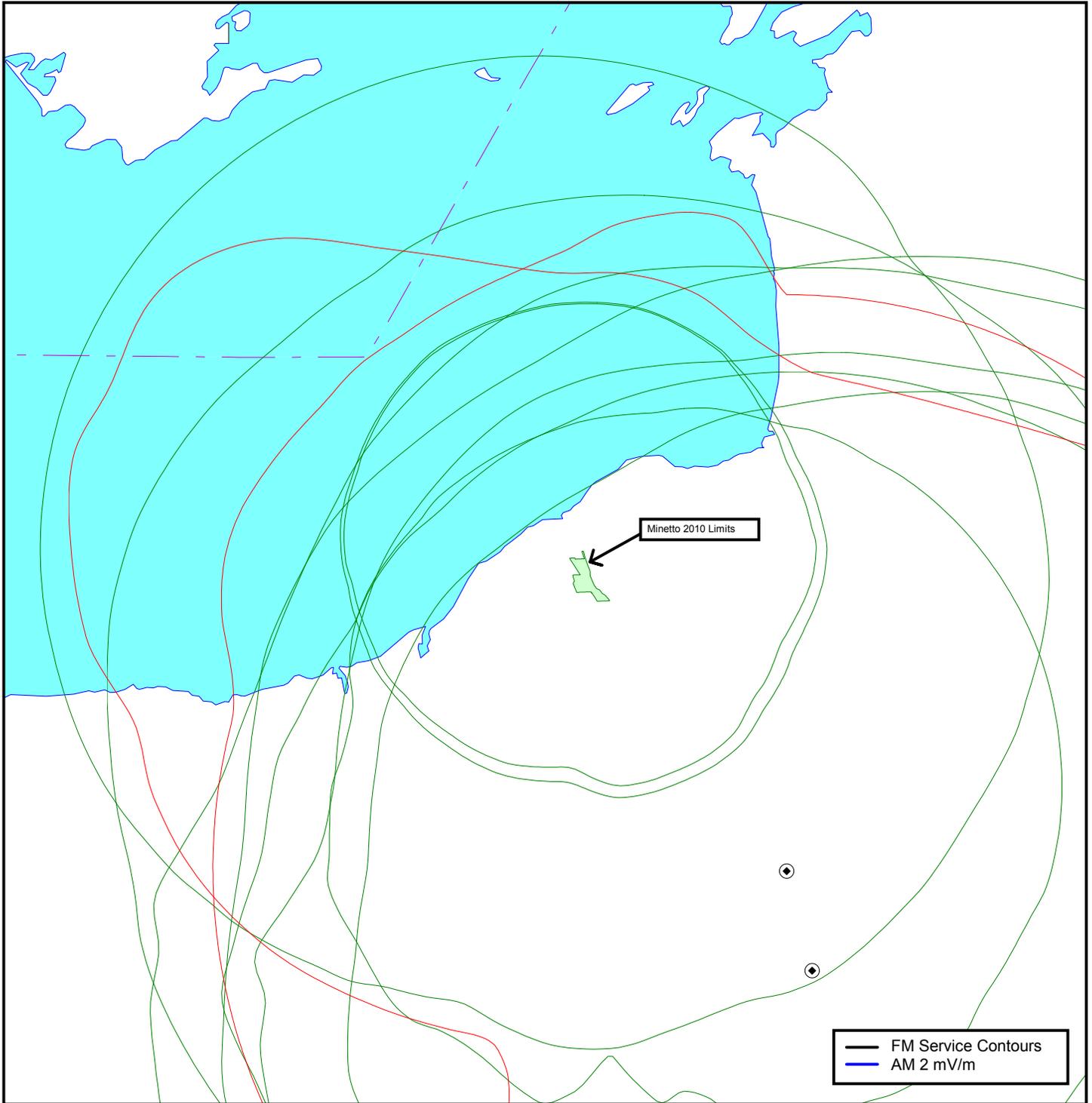


**COMPLIANCE WITH SECTION 73.315**

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

Figure 3



**OTHER FM AND AM PROTECTED SERVICES  
AVAILABLE TO MINNETTO, NEW YORK**

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MINNETTO, NEW YORK  
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida

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Tabulation of AM/FM Protected Services  
Available to Minetto, New York

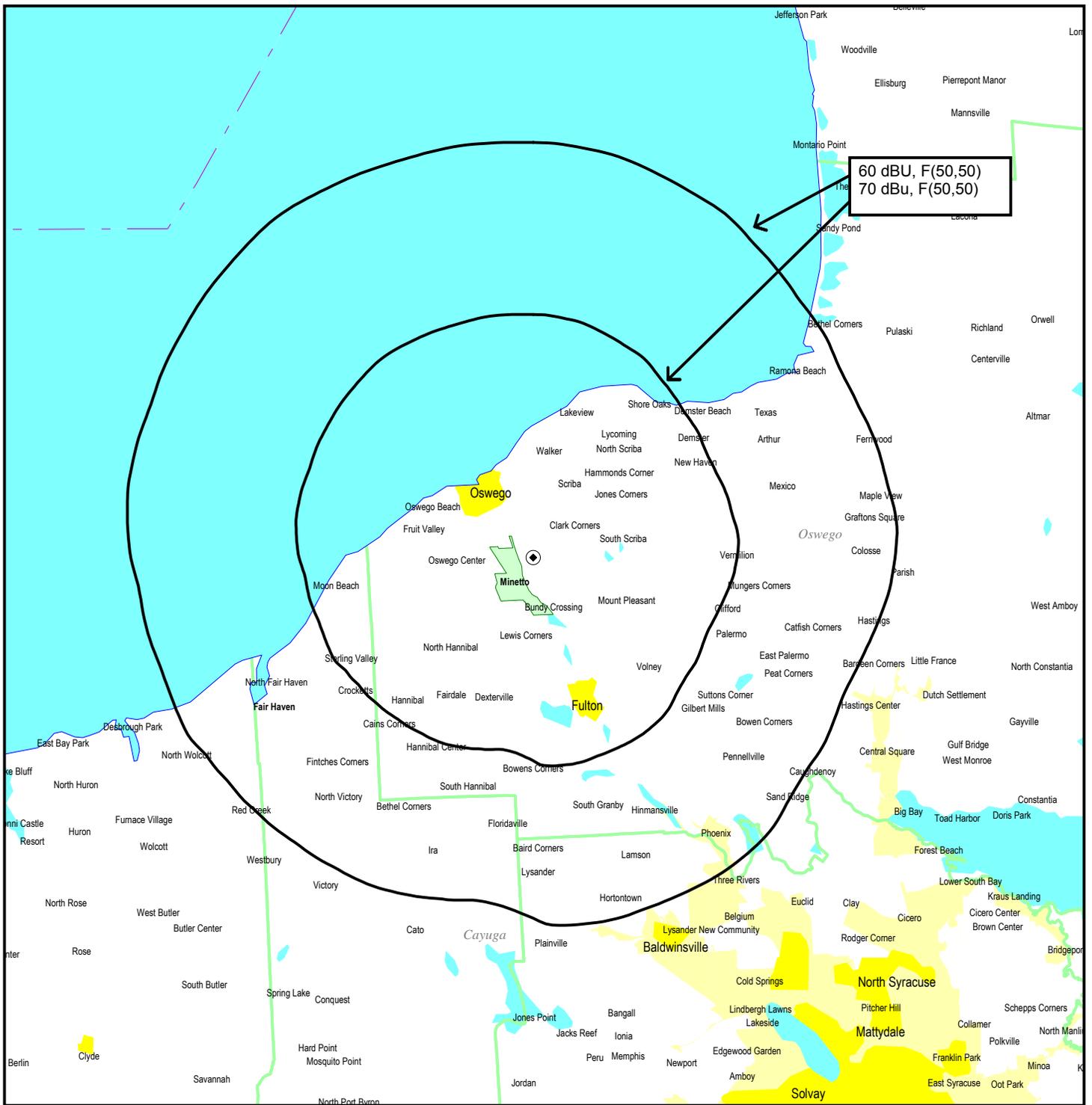
**FM CONTOURS**

<b><u>Call Sign</u></b>	<b><u>Community of License</u></b>	<b><u>State</u></b>	<b><u>Channel</u></b>
WMHR	SYRACUSE	NY	275B
WTKV	OSWEGO	NY	288A
WSEN-FM	BALDWINSVILLE	NY	221B1
WCNY-FM	SYRACUSE	NY	217B
WBBS	FULTON	NY	284B
WRVO	OSWEGO	NY	210B
WNTQ	SYRACUSE	NY	226B
WWHT	SYRACUSE	NY	300B
WYYY	SYRACUSE	NY	233B

**AM CONTOURS**

<b><u>Call Sign</u></b>	<b><u>Community of License</u></b>	<b><u>State</u></b>	<b><u>Frequency (kHz)</u></b>
WSYR	Syracuse	NY	570
WHEN	Syracuse	NY	620

Figure 5

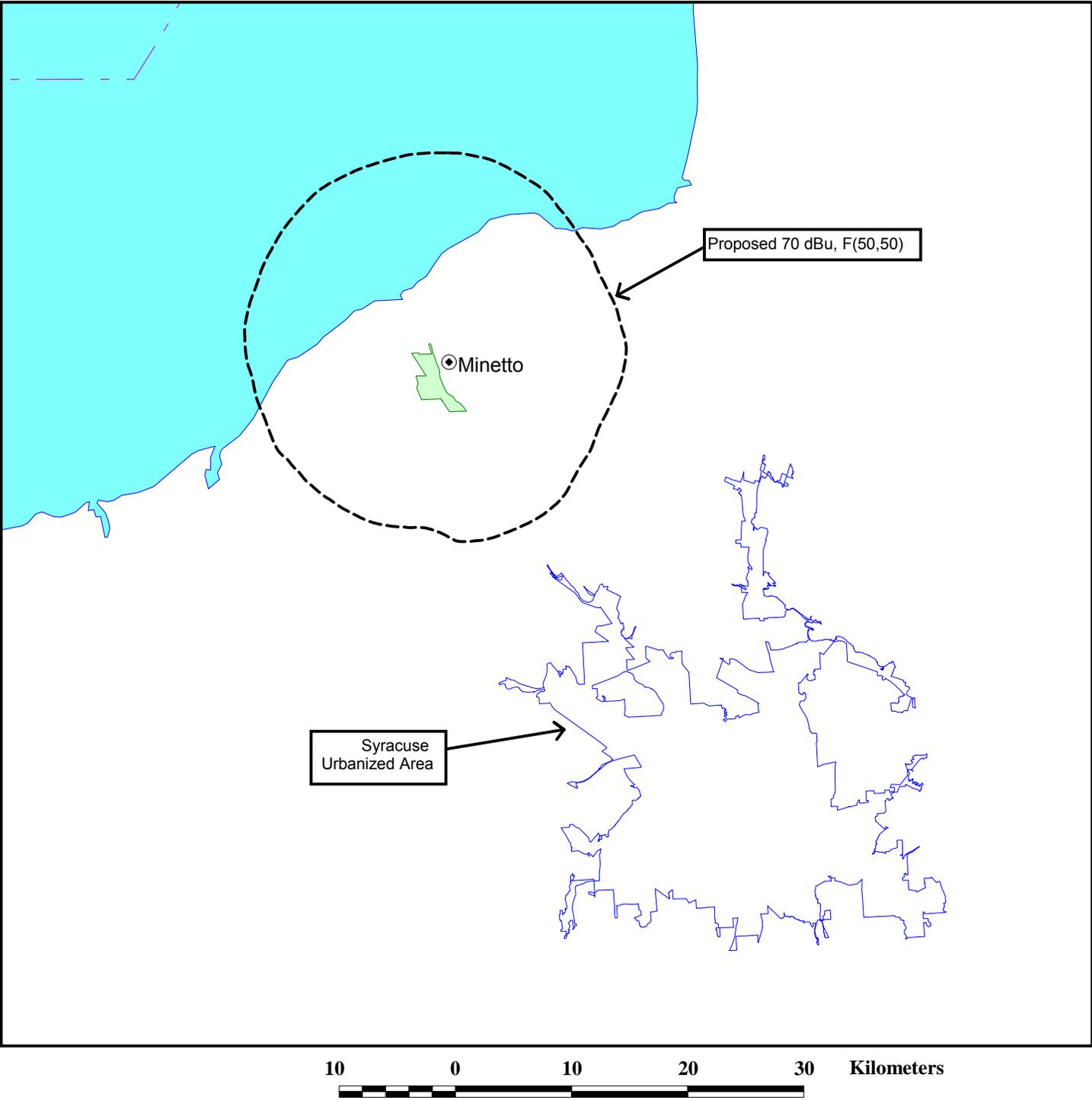


**FCC PREDICTED COVERAGE CONTOURS**

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Figure 6



**URBANIZED AREA COVERAGE**

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