

Wind Power GeoPlanner™

Amateur Radio Report

Agricola Wind



Prepared on Behalf of
Liberty Renewables Inc.

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COMSEARCH
A CommScope Company

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1. Introduction

Amateur radio (or “ham radio”) uses radio frequency spectrum in the LF, MF, HF, VHF and UHF bands for a variety of non-commercial communications including private recreation and emergency support. In this report, Comsearch identified amateur licenses located within the proposed Agricola Wind Project in Cayuga County, New York (the Project) that could potentially be affected by the Project. The Project area of interest is defined as the rectangular area with a minimum of a 2-mile buffer from all turbine locations as noted in Figure 1.

2. Summary of Results

Comsearch found seven FCC database records¹ for amateur licenses in the vicinity of the Project, as shown in Table 1 and Figure 1. Our search was performed by geocoding the street address of each amateur licensee, after performing an initial cull using the zip code of the licensee. There are six zip codes within the vicinity of the Project: 13026, 13071, 13081, 13092, 13118, 13146.

Call Sign	Operator Name	Address	FCC Expiration Date	Operator Class	Distance to Closest Turbine (km)
K2FEO	ELLISON, ROBERT R	3179 FORD RD VENICE CENTER NY 13147	01/31/2033	Amateur Extra	0.54
KA2LIQ	CLARK, CELESTIA A	2255 EVENICE RD MORAVIA NY 13118	12/17/2026	General	0.60
WB2NYP	Clark, Marilyn L	2224 E VENICE RD MORAVIA NY 13118	07/14/2024	General	0.73
W3FSD	KELLER, CHRISTOPHER	2517 State Route 34 Scipio Center NY 13147	09/07/2032	Technician	1.21
WB2MVX	HAMILL Mr, THOMAS W	2759 PUTNAM Pky Scipio Center NY 13147	01/26/2029	Advanced	1.35
K2RSY	WIETHUECHTER, FRANK G	3635 Rockfeller Rd MORAVIA NY 13118	11/24/2032	Amateur Extra	4.43
KC2RXO	WIETHUECHTER, ADAM T	3635 ROCKFELLER RD MORAVIA NY 13118	07/09/2027	General	4.43

Table 1: Amateur Radio Licenses

¹ Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data presented in this report is derived from the amateur license holder's FCC license and governed by Comsearch's data license notification and agreement located at http://www.comsearch.com/files/data_license.pdf.

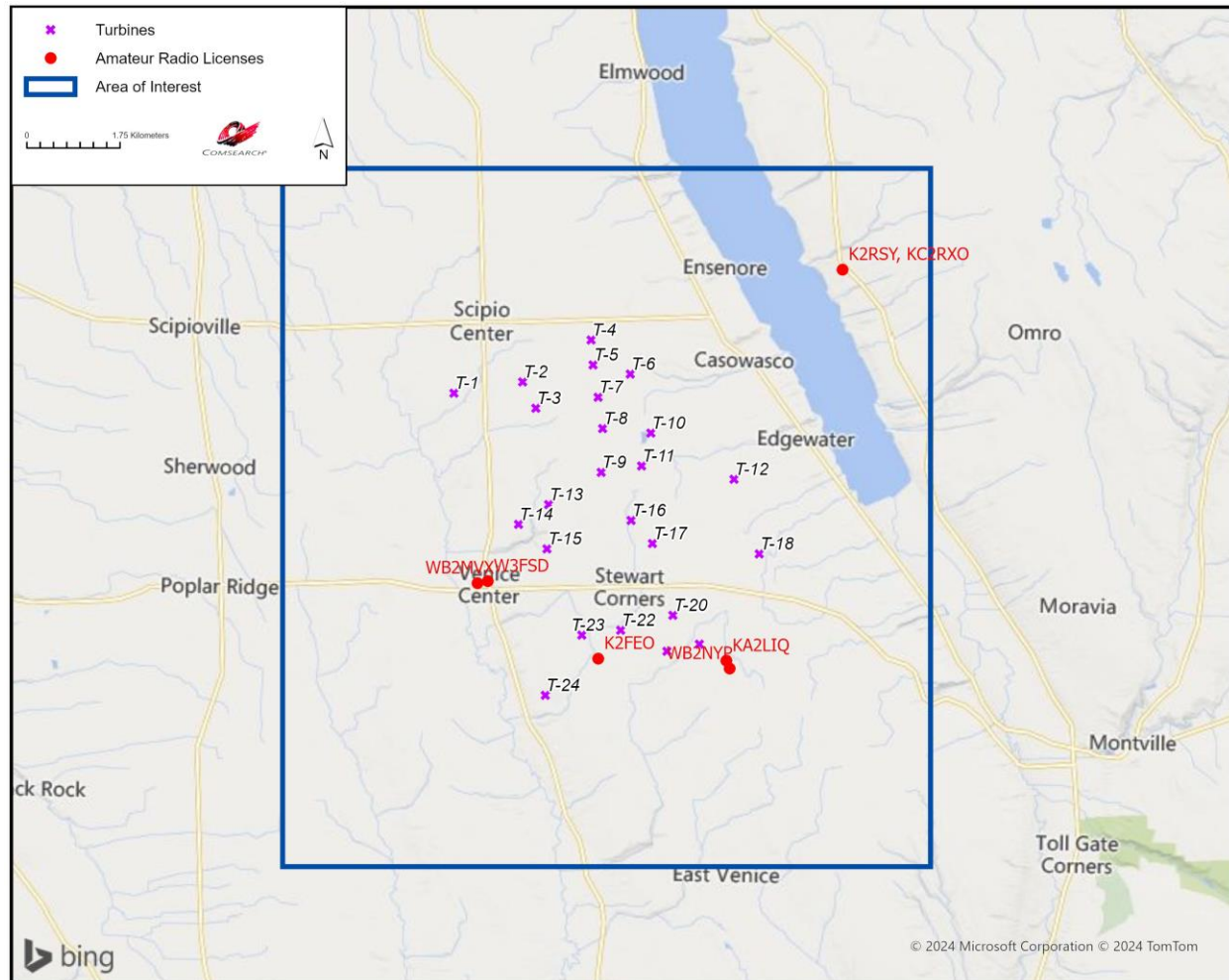


Figure 1: Plot of Amateur Licenses Geocoded by Street Address (Excluding PO Boxes)

Seven additional active license was found with a Post Office Box address in an overlapping zip code. They can be found in table 2 below.

Call Sign	Operator Name	Address	FCC Expiration Date	Operator Class
N8BZW	ECKHARDT JR, DAVID A	PO Box 294 AURORA NY 13026	10/06/2022	General
KD2DLT	GRESCHLER, MICHAEL J	PO Box 1157 MORAVIA NY 13118	02/07/2023	Technician
AJ2HK	Justian, Kevin E	PO Box 469 Moravia NY 13118	04/19/2025	Amateur Extra
KC2GSA	Justian, Heather M	PO Box 469 Moravia NY 13118	07/23/2030	Technician
N2KJ	CAMP HILL AMATEUR RADIO CLUB	PO Box 469 MORAVIA NY 13118	12/13/2032	Amateur Extra
N2KJ	CAMP HILL AMATEUR RADIO CLUB	PO Box 469 MORAVIA NY 13118	12/13/2032	Unknown
N2MAE	WITHERS JR, ROLAND O	RD 4 BOX 31 MORAVIA NY 13118	04/03/2025	Technician

Table 2: Amateur Radio Licenses with Office Box Address

3. Impact Assessment

Amateur radio systems are typically unaffected by the presence of wind turbines, and we do not anticipate any significant harmful effect to their operations in the vicinity of the Project. Although each licensee operates in different frequency ranges using various modes of communication including phone, image and data signaling, there is commonality among these systems with regard to the impact of wind turbines on their operation. Radio wave signals in the US Amateur Radio Bands (i.e., LF, MF, HF, VHF and UHF bands) have long wavelengths that enables them to pass through and around objects such as wind turbine towers and blades.

Furthermore, the frequencies on which these systems operate enable amateurs to transmit and receive signals that propagate large distances despite being in a non-line-of-sight (NLOS) environment. In the LF and MF bands (30 – 3,000 kHz), radio waves propagate by interacting with the Earth’s conductive surface, thereby following its curvature and propagating through rugged terrain and over the horizon. This is referred to as “groundwave” propagation. In the HF band (3 – 30 MHz), radio waves use the upper region of the atmosphere known as the “ionosphere” as a reflector back to Earth and thereby extend beyond the horizon. This is referred to as “skywave” propagation which is made possible by the layers of charged particles in the upper atmosphere that cause radio waves to change direction as they propagate back towards the Earth. In the VHF and UHF bands for US amateur radio (50 – 225 MHz and 420 – 1300 MHz, respectively), radio waves can propagation large distances by means of refraction due to the lower region of the atmosphere known as the “troposphere” which has a refraction index that changes as a function of temperature and air pressure.

Therefore, based on these wave characteristics and propagation of signals used for amateur radio communications in the above frequency bands, we do not anticipate any significant harmful effect to their operation by the proposed wind turbines in the Agricola Wind project area.

4. Contact Us

For questions or information regarding the Amateur Radio Report, please contact:

Contact person:	David Meyer
Title:	Senior Manager
Company:	Comsearch
Address:	21515 Ridgetop Circle, Suite 300, Sterling, VA 20166
Telephone:	703-726-5656
Fax:	703-726-5595
Email:	David.Meyer@CommScope.com
Web site:	www.comsearch.com