Comprehensive Technical Exhibit

AOK Media Corporation

November 2, 2021

Freq: 90.1 MHz	**Channel 211**	**320 watts**	**30 meters above ground**
44 meters HAAT	**ASR #1062838**	**31-50-12.1 N**	**106-39-50.2 W**

AOK Media Corporation ("AOK" or "Applicant") asks permission to build a new non-commercial FM station in Canutillo, Texas. AOK proposes use of a directional antenna to protect an operating station in Mexico and a treaty reservation. The proposal would cause no interference in Mexico to those operating or proposed stations. Applicant respectfully requests a waiver of 73.316 (b) 1 and 73.316 (b) 2 to allow use of a directional antenna with greater front to back suppression and waive the rate of change guidelines.

Canutillo, Texas as proposed City of License: According to Wikipedia...**Canutillo** is a census-designated place (CDP) in El Paso County, Texas, United States. The population was 6,321 at the 2010 census.[3] It is part of the El Paso Metropolitan Statistical Area. The ZIP Codes encompassing the CDP area are 79835 and 79932.

Canutillo has been in existence since the early 1900s. Schools were provided by the City of El Paso until 1959 when the **Canutillo Independent School District** was founded. The district opened April 18, 1959. CISD serves a portion of Vinton, Prado Verde and Westway. A (largely unpopulated) portion of El Paso is within the district. This portion is lightly used, but construction is quickly filling in raw land within Canutillo ISD boundaries.

Channel Search

ComStudy 2.2 search of channel 211 (90.1 MHz Class A) at 31-50-12.0 N, 106-39-53.0 W.

CALL	CITY	ST	CHN	CL	DIST	SEP	BRNG	CLEARANCE
	PRAXEDIS GUER.	CH	211	B	81.08	178.00	129.4	-22.89 dB
XHHFM	CIUDAD JUAREZ	CH	264	C	20.53	29.00	121.8	-8.5
XHHFM	CIUDAD JUAREZ	CH	264	C	21.57	29.00	133.1	-7.4
NEW	RADIUM SPRINGS	NM	6 TV		136.13	0.00	337.4	0.0
K06QI-D	OROGRANDE	NM	6 TV		132.24	0.00	33.3	0.0
NEW	OROGRANDE	NM	6 TV		133.05	0.00	33.9	0.0
	GUADALUPE BRAV.	CH	210	A	75.24	68.00	131.9	2.88 dB
	LOS MOSCOS	CH	210	B	144.36	125.00	257.2	9.58 dB
KYCM	ALAMOGORDO	NM	210	C3	132.24	89.00	33.3	11.20 dB
KMBN	LAS CRUCES	NM	09	A	54.18	31.00	334.8	26.94 dB
KRLU	ROSWELL	NM	211	A	254.77	115.00	47.7	33.43 dB
	NUEVO CAS. GRAN.	CH	213	B	203.07	69.00	217.9	39.93 dB

A directional Antenna will be required to protect two International concerns: A long vacant allotment in Praxedis, CH for a 50,000 station on 90.1 south and east of the El Paso, Texas and Ciudad Juarez, CH area. The antenna pattern would also reduce radiation toward XHH-FM a station operating on an Intermediate Frequency related channel.

Pattern requires waiver of section 73.316 (b) (1 and 2) regarding maximum antenna suppression (25 db instead of usual 15 db front to back ration) and rate of change (usually 2db per 10 degrees of azimuth change).

From the FCC Rules

§ 73.316 FM antenna systems.
(a) It shall be standard to employ horizontal polarization; however, circular or elliptical polarization may be employed if desired. Clockwise or counterclockwise rotation may be used. The supplemental vertically polarized effective radiated power required for circular or elliptical polarization shall in no event exceed the effective radiated power authorized.

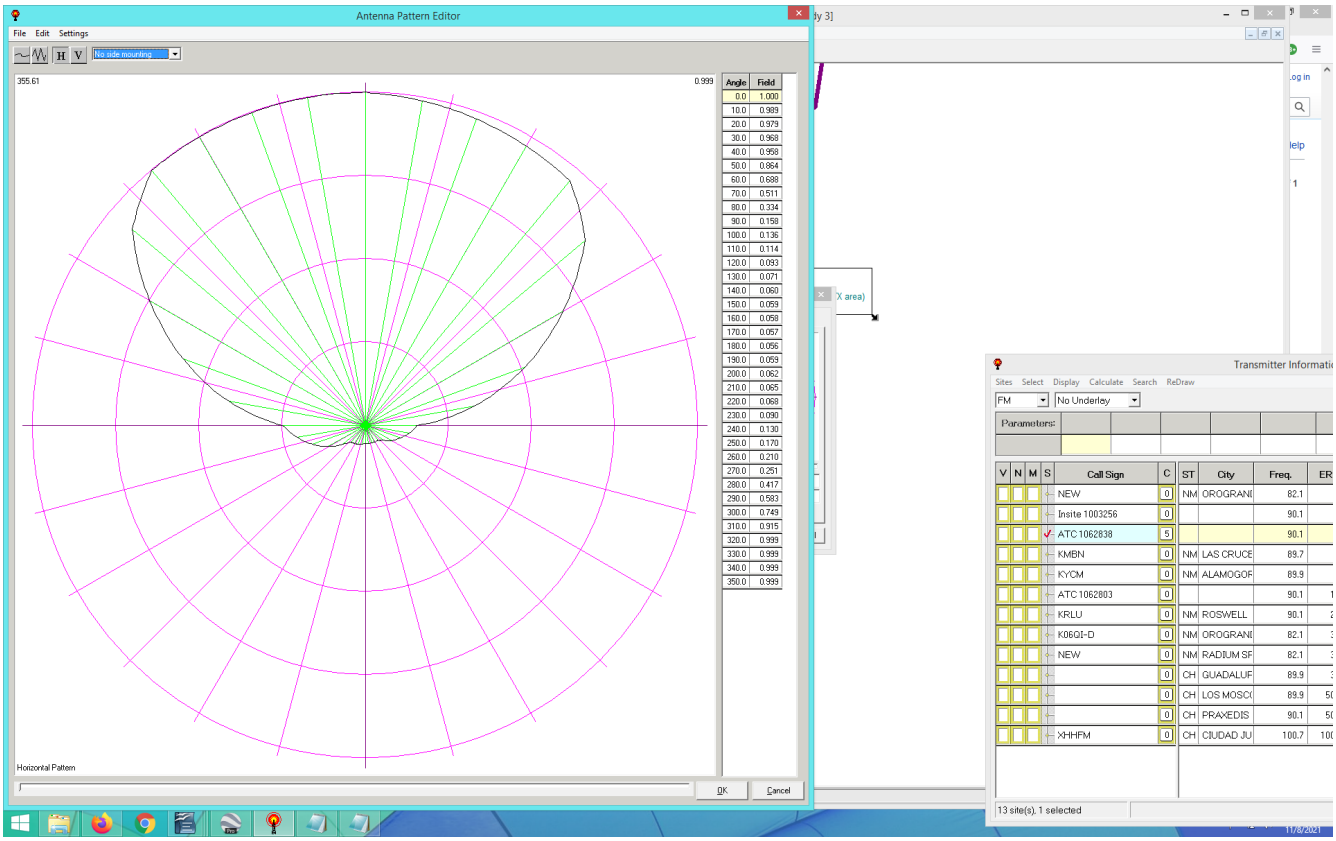
(b) Directional antennas. A directional antenna is an antenna that is designed or altered for the purpose of obtaining a non-circular radiation pattern.

(1) Applications for the use of directional antennas that propose a ratio of maximum to minimum radiation in the horizontal plane of more than ***15 dB*** will not be accepted.

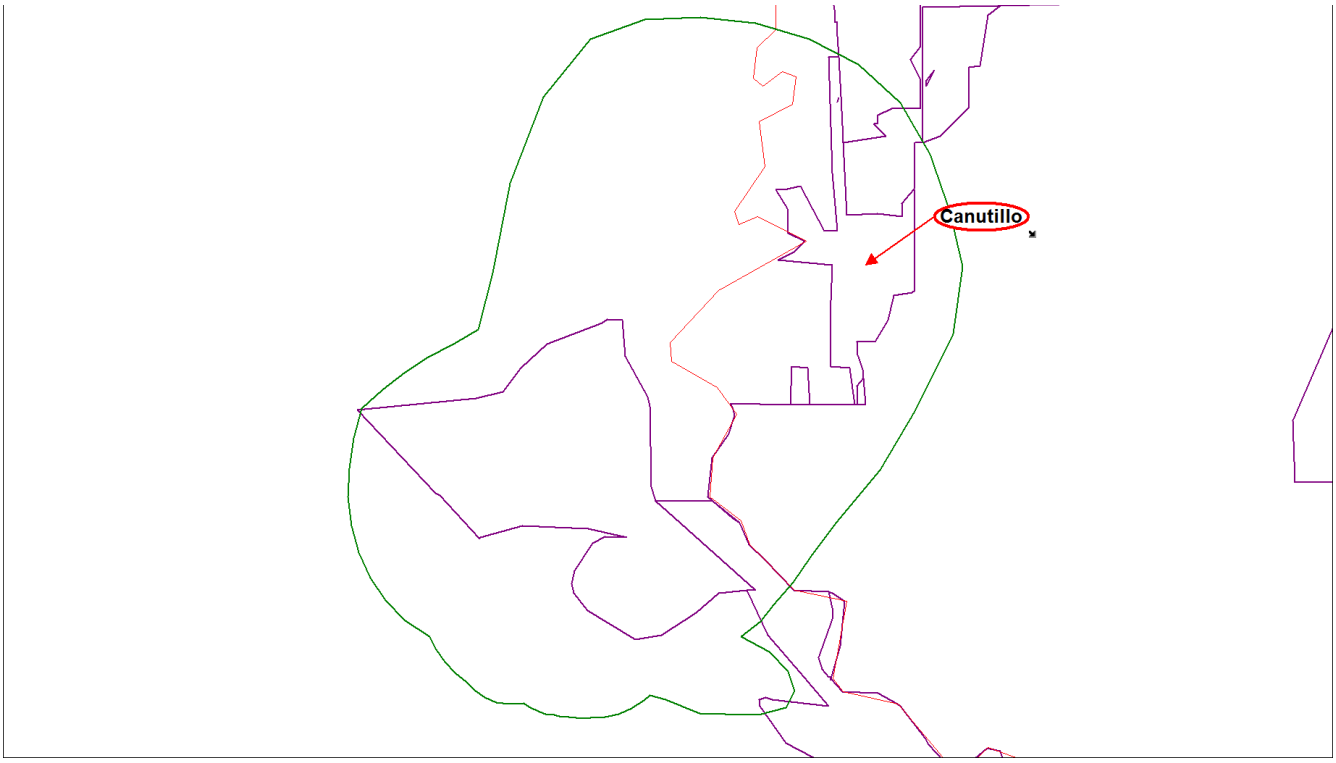
(2) Directional antennas used to protect short-spaced stations pursuant to § 73.213 or § 73.215 of the rules, that have a radiation pattern which varies more than ***2 dB per 10 degrees*** of azimuth will not be authorized.

Waivers have been requested and granted in border area cases where needed to protect Mexican assignments. In case further or unusual international coordination is necessary, we pray that the FCC staff will allow us to help them begin that process.

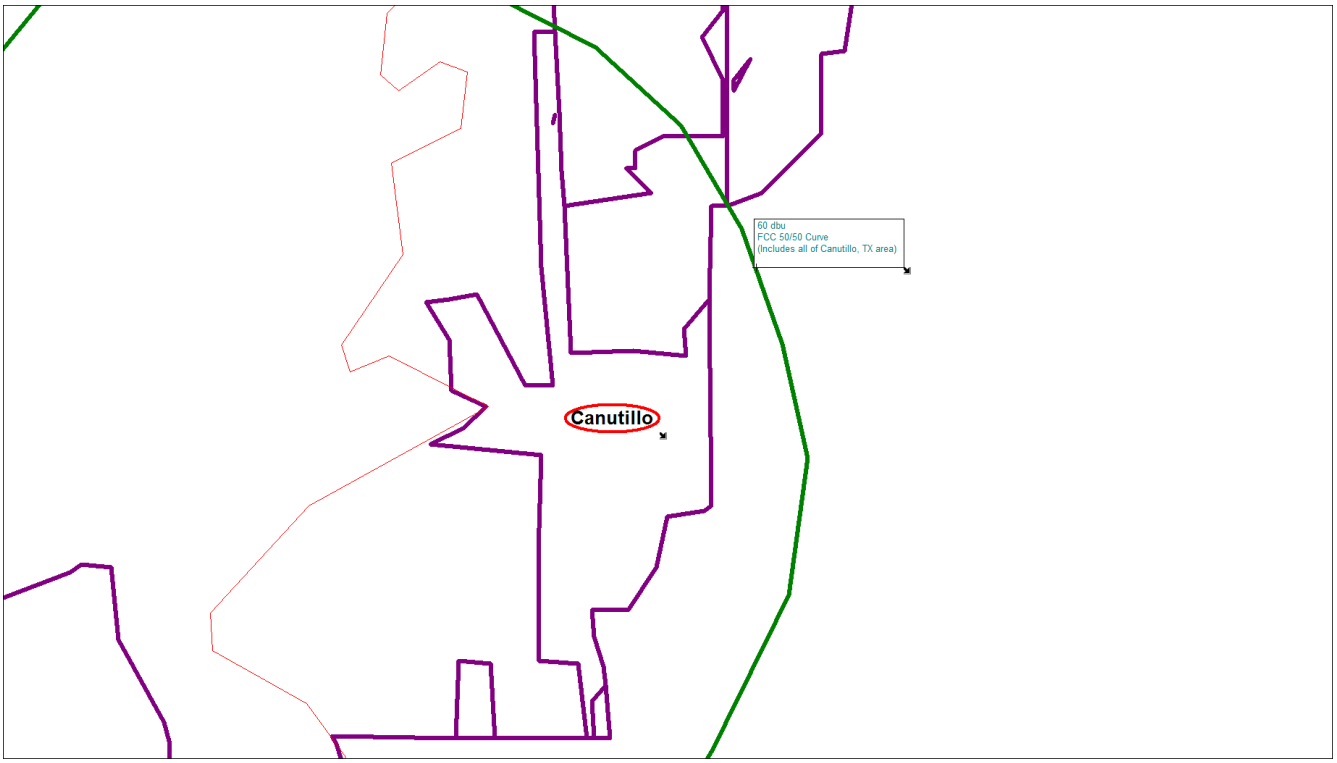
Proposed Directional Pattern Shape



Overall Coverage of Area

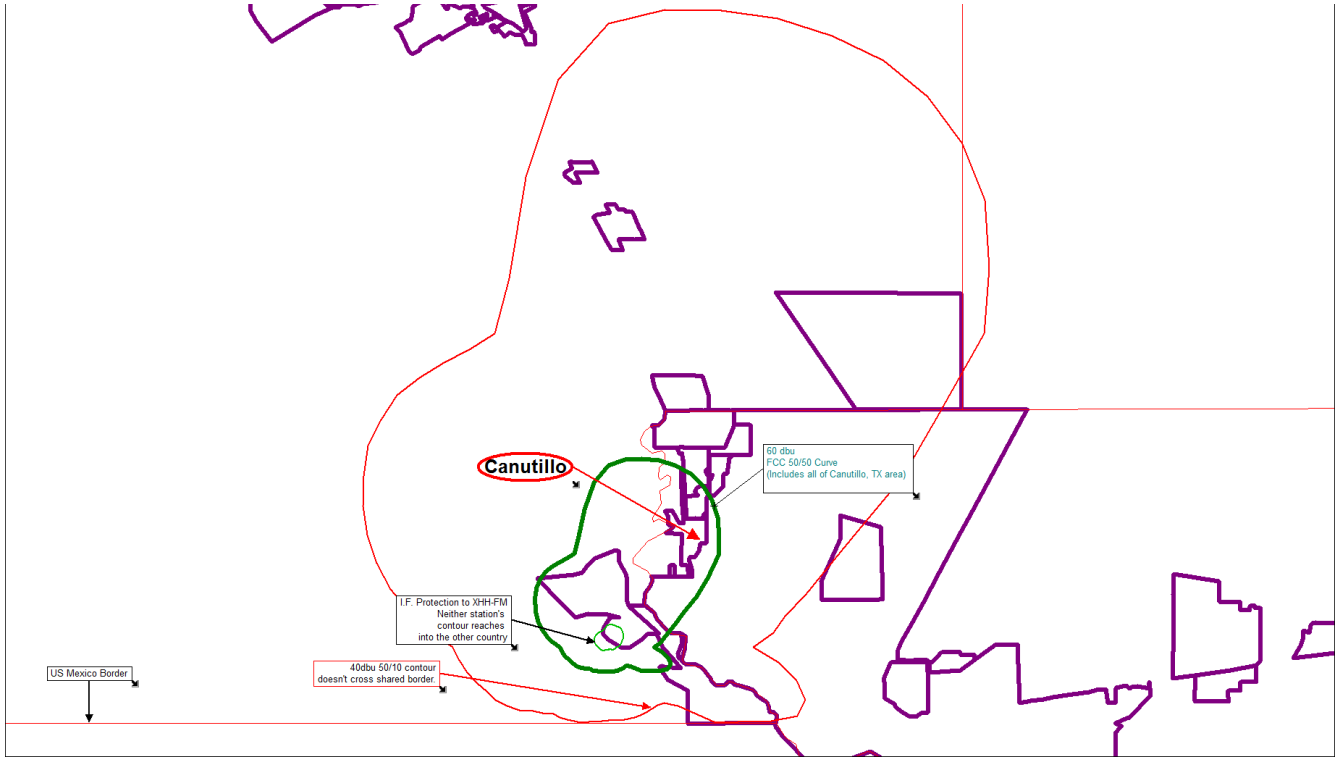


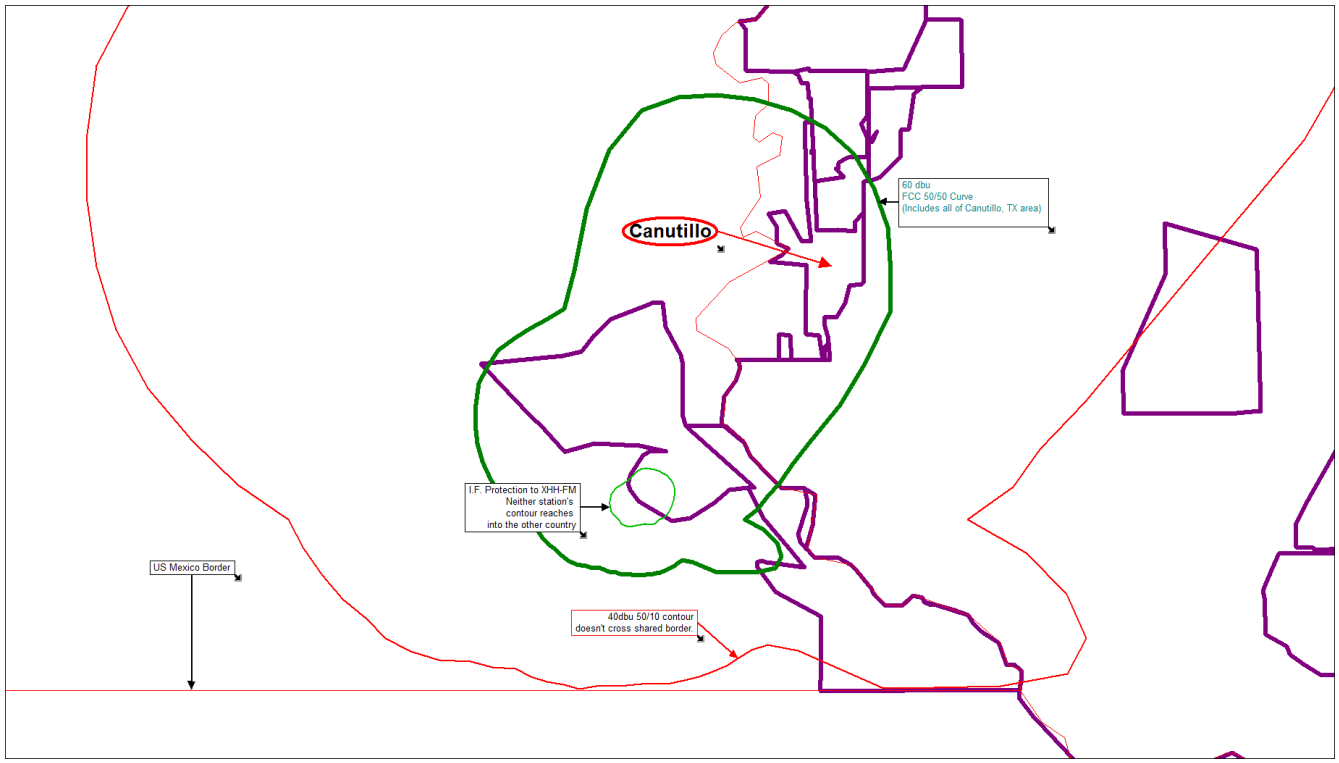
City Grade Coverage to Canutillo, Texas



The application will place a 60dbu signal over all of Canutillo.

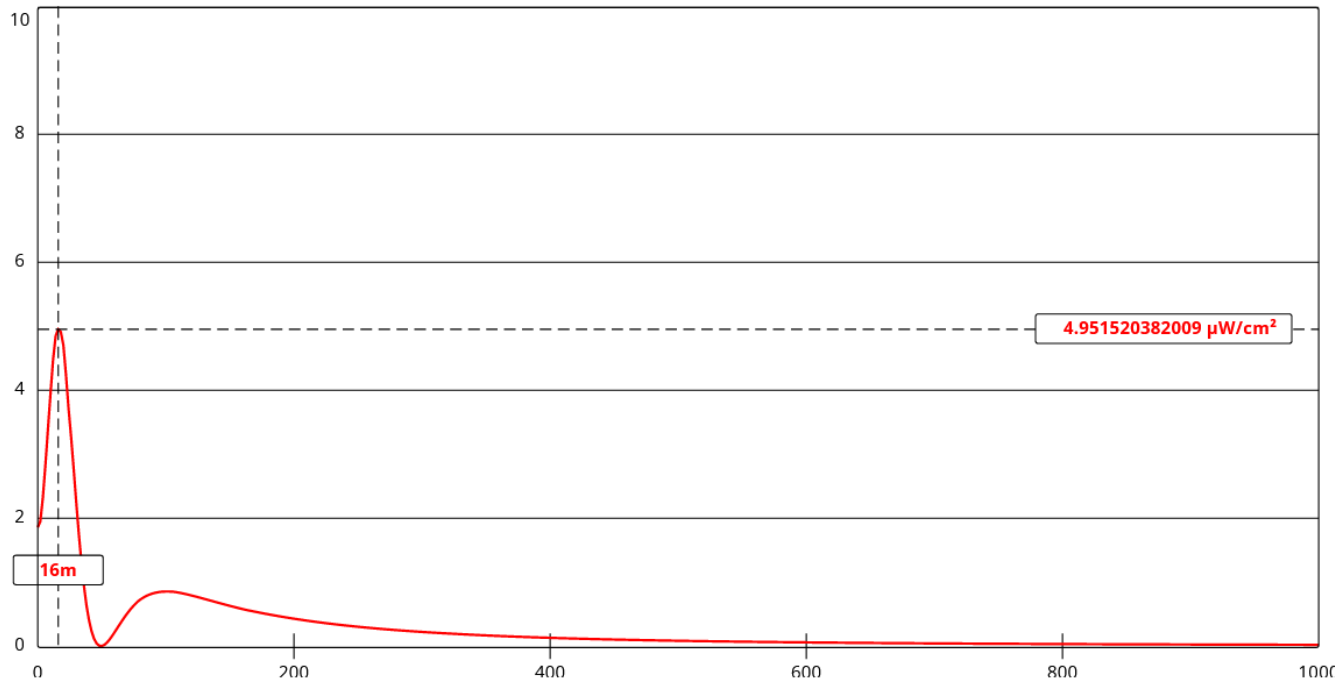
Protection to US/Mexico Border





Environmental

Proposed facility would use a two element “opposed Vee” antenna with one wavelength interbay spacing. Antenna would be center 30 meters above ground. With this antenna and power of 320 watts horizontal and 320 watts vertical, RF levels reach a predicted maximum 16 meters from the structure base. This maximum is under 5 microwatts, less than 2.5% of the public exposure limit.



View Tabular Results +

Channel Selection	Channel 211 (90.1 MHz)		
Antenna Type +	EPA Type 2: Opposed V Dipole		
Height (m)	30.5	Distance (m)	1000
ERP-H (W)	320	ERP-V (W)	320
Num of Elements	2	Element Spacing (λ)	1
Num of Points	500	Apply	

The area is remote, consisting of unpopulated desert. The base is (and will be) fenced and signs posted.

This application was prepared using data from publicly available sources (FCC LMS and CDBS) and from commercial sources. I believe the results to be accurate to the best of my knowledge.

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*In case of email trouble use K287AT@gmail.com as a backup