Attachment # 11
Discussion
Comprehensive Technical Exhibit
Covering Exhibits 11 through 18
April 2020

This engineering Report is in support of an application for WSPY-AM for a Minor Change from Geneva, Illinois to Somonauk, Illinois, as a Class D – operating Non-DA with 141mv/m @ 1 KM. (Larry Nelson has discussed with FCC Engineering Department that 141mv/m was permissible to use for Class D.)

Discussion

This application, a Minor change in both technical facility and city of license, is filed as a result of the FCC's Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures. This proposal creates a preferential 307(b) alignment (See 307(b) Exhibit) and furthers the FCC preferences for "Interference Reduction" in that, overall, this proposal gives and receives less interference than the current licensed facility. See attached Interference Reduction Study. As demonstrated, the relocation of 1480 to Somonauk, Illinois will reduce the Daytime Sq KM of interference given over a geographic area encompassing 1,046 sq KM and 512,731 people. The proposed facility will reduce interference received over a geographic area encompassing 1,843 sq KM and 905,244 people while allotting the First local transmission broadcast service to the town of Somonauk, Illinois located in a non-urbanized area.

Broadcast Facility

The applicant proposes to construct one tower for Non-directional operation as specified in the Tech Box. The transmission system would include a transmitter compliant with the FCC current requirements, the Tower 90 degrees tall will have 120 ground radials, 90 degrees long from the tower, and 120 50-foot radials from the base of the tower. The transmitter site is 4.5 acres farmland. (See site aerial and site photos attached.) The tower is less than 199 feet tall and is not in the glide slope of an FAA recognized airport and will not be painted or lit (see FAA Report).

Blanket Contour

The proposed 1.0v/m "Blanket Contour" map has been included in this report. While the population count using the 2010 U.S. Census shows there is 0 persons in the 1.0 v/m.

The proposed facility at 1480 kHz has the following population counts based on 2010 U.S. Census.

		Population	Sq KM
1,000	mv/m	0	.1
5	mv/m	32,580	426.4
2	mv/m	66,971	1,132.8
.5	mv/m	564,672	4,049.1

307(b)

In a separate Exhibit the applicant has made a 307(b) showing for Somonauk, Illinois.

Groundwave

The proposed allocation study of 1480 kHz shows compliance with the requirement of FCC rules and/or meets the objectives of the FCC Policy for Preferential alignment of 307(b) and AM Interference Reduction. The attached Allocation Study maps demonstrate that fact. FCC M-3 conductivities have been used in calculating contours.

Skywave Interference

Daytime only.

Critical Hours Interference

This proposed operation is in compliance with the requirement of 73.187, no critical hours of operation is required.

Environmental Effects

The proposed operation is in compliance with OET Bulletin No. 65. Full protection is afforded by the proposal. An RF study has been included in Exhibit 18. Workers and the general public will not be exposed to high radiation at the station. The tower will be in a location, properly enclosed by a locked security fence, and RF warning signs are posted. The station will operate with transmitter power of 250 W. The station will be in compliance with the radio frequency protection guides of the American National Standards Institute, and OET Bulletin No. 65, including the reduction or cessation of transmitter power when persons have access to the site, towers or antenna. The station will comply with Section 1.1307 of the Commission's rules. Grant of the station's application will not result in a significant environmental impact per the worksheet except for NEPA. The Tribal Nations were notified through the FCC portal. Seven Nations asked for information about the site. Professor Kevin McGowan,

University of Illinois, has performed the archeological study at the site and the information was sent to the Tribal Nations with the cutoff date of May 21, 2020 for their response. The applicant's shareholders currently own the proposed transmitter site which has been farmed for over 100 years. The applicant is ready to proceed with construction pending the completed NEPA upon the FCC issuance of a Construction Permit.

Exhibit 18

1. **R-F RADIATION GUIDELINES COMPLIANCE STUDY**

This instant application has been evaluated for potential of human exposure to non-ionizing radiofrequency radiation. The guidelines set forth in OET Bulletin No. 65 were used as the standard for this evaluation.

The proposed facility at 250 watts, with a Radiator indicated and a frequency of 1480 kHz requires fencing at 1 Meter from the tower base (1 Meter for 1kw). Fencing at the tower site will comply with or exceed this requirement.

In the event maintenance personnel are required to work within the restricted areas, they will be advised to limit their work in the high RF field areas to specified periods of time appropriate for compliance with the FCC guidelines set forth in OET Bulletin No. 65 (Edition 97-01). If their work cannot be completed within the specified period of time, it is proposed to reduce power appropriately or shut down the operation of the stations to permit completion of the assignment.

Larry Nelson
CEO
Nelson Multimedia, Inc.
FCC License PG-18-9128

Doug Nelson
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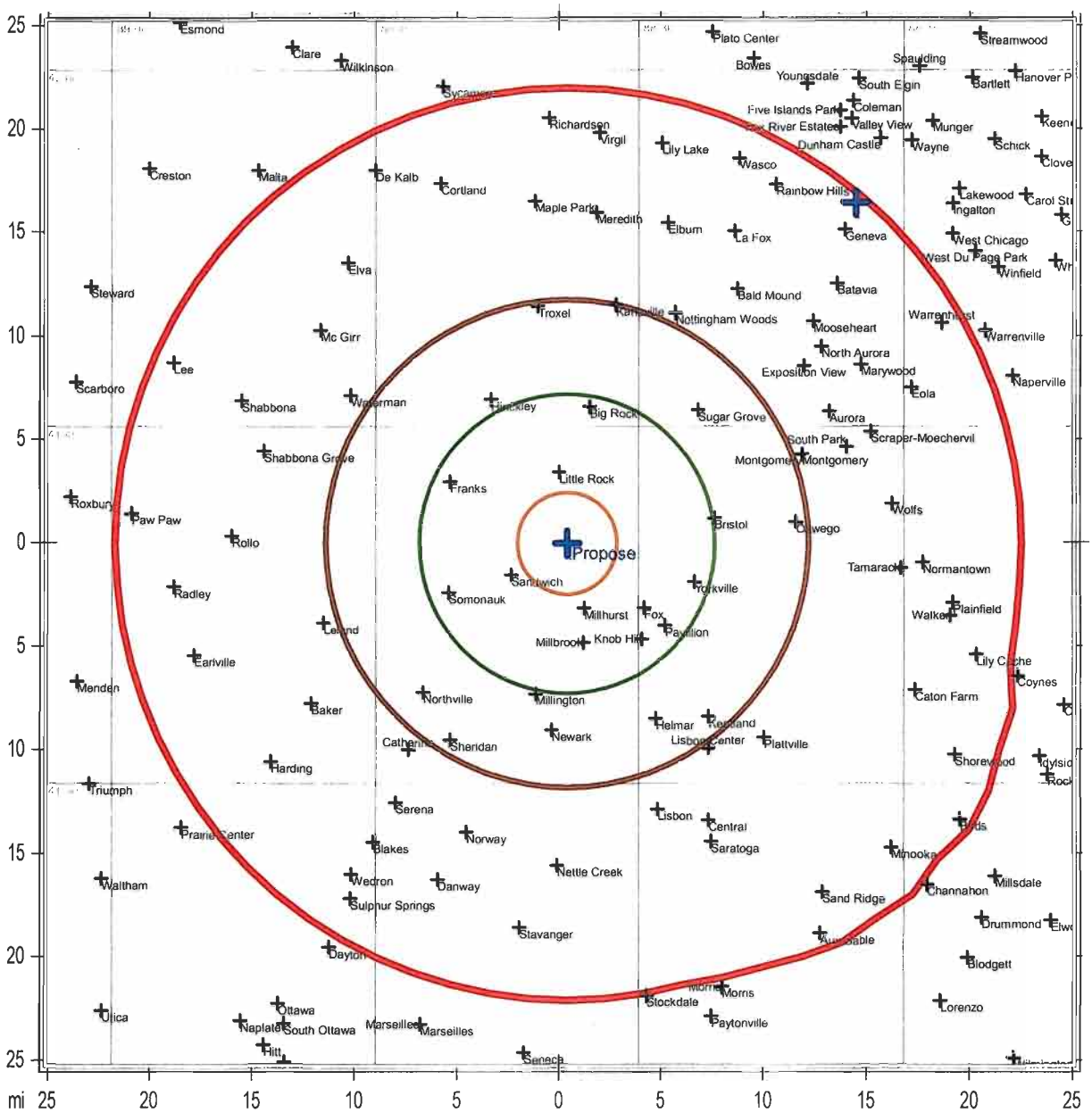
April 2020

Somonauk IL Population Study Coverage Map



Red=.5mv/m, Brown=2mv/m, Green=5mv/m, orange=25mv/m

State Borders Lat/Lon Grid

Wspy am somonauk IL Coverage data 4-30-20

Callsign : !Propose
Coordinates : 41-40-06.0 N, 88-34-06.0 W
Comments :
Frequency (KHz): 1480
Power (w): 250.000
Pattern : LD
Efficiency : 141.333 mV/M
Desc :
City/State : ,
ARN :
Licensee :

Tower	Field	Phase	Spcng	Ornt	Hght	TopLd
1	1.000	0.0	0.0	0.0	55.0	0.0

Brng	Span	mV/M

Field

Brng	mV/m	Brng	mV/m	Brng	mV/m	Brng	mV/m	Brng	mV/m
0	141.333	75	141.333	150	141.333	225	141.333	300	141.333
5	141.333	80	141.333	155	141.333	230	141.333	305	141.333
10	141.333	85	141.333	160	141.333	235	141.333	310	141.333
15	141.333	90	141.333	165	141.333	240	141.333	315	141.333
20	141.333	95	141.333	170	141.333	245	141.333	320	141.333
25	141.333	100	141.333	175	141.333	250	141.333	325	141.333
30	141.333	105	141.333	180	141.333	255	141.333	330	141.333
35	141.333	110	141.333	185	141.333	260	141.333	335	141.333
40	141.333	115	141.333	190	141.333	265	141.333	340	141.333
45	141.333	120	141.333	195	141.333	270	141.333	345	141.333
50	141.333	125	141.333	200	141.333	275	141.333	350	141.333
55	141.333	130	141.333	205	141.333	280	141.333	355	141.333
60	141.333	135	141.333	210	141.333	285	141.333		
65	141.333	140	141.333	215	141.333	290	141.333		
70	141.333	145	141.333	220	141.333	295	141.333		

0.0 ohm K : 0.000 1.0 ohm K : 0.000
RMSs : 0.000 RMSt : 0.000
RSS : 0.000

Contour type : Ground Wave
Signal strength : 0.250 mV/m
Area covered : 7586.200 sq. mi
Population covered: 1395299 persons

Azimuth Degrees	Field mV/m @ 1 kM	Contour mV/m	Distance kM
0	141.33	0.250	47.68
5	141.33	0.250	47.68
10	141.33	0.250	47.68
15	141.33	0.250	47.68
20	141.33	0.250	47.68
25	141.33	0.250	47.68
30	141.33	0.250	47.68
35	141.33	0.250	47.68
40	141.33	0.250	47.68
45	141.33	0.250	47.68
50	141.33	0.250	47.68
55	141.33	0.250	47.68
60	141.33	0.250	47.68
65	141.33	0.250	47.68

70	141.33	0.250	47.68
75	141.33	0.250	47.68
80	141.33	0.250	47.68
85	141.33	0.250	48.12
90	141.33	0.250	50.04
95	141.33	0.250	51.44
100	141.33	0.250	52.77
105	141.33	0.250	53.06
110	141.33	0.250	54.31
115	141.33	0.250	54.54
120	141.33	0.250	55.31
125	141.33	0.250	55.69
130	141.33	0.250	55.12
135	141.33	0.250	55.56
140	141.33	0.250	55.03
145	141.33	0.250	54.93
150	141.33	0.250	54.19
155	141.33	0.250	53.47
160	141.33	0.250	53.05
165	141.33	0.250	51.76
170	141.33	0.250	50.82
175	141.33	0.250	49.21
180	141.33	0.250	47.68
185	141.33	0.250	47.68
190	141.33	0.250	47.68
195	141.33	0.250	47.68
200	141.33	0.250	47.68
205	141.33	0.250	47.68
210	141.33	0.250	47.68
215	141.33	0.250	47.68
220	141.33	0.250	47.68
225	141.33	0.250	47.68
230	141.33	0.250	47.68
235	141.33	0.250	47.68
240	141.33	0.250	47.68
245	141.33	0.250	47.68
250	141.33	0.250	47.68
255	141.33	0.250	47.68
260	141.33	0.250	47.68
265	141.33	0.250	47.68
270	141.33	0.250	47.68
275	141.33	0.250	47.68
280	141.33	0.250	47.68
285	141.33	0.250	47.68
290	141.33	0.250	47.68
295	141.33	0.250	47.68
300	141.33	0.250	47.68
305	141.33	0.250	47.68
310	141.33	0.250	47.68
315	141.33	0.250	47.68
320	141.33	0.250	47.68
325	141.33	0.250	47.68
330	141.33	0.250	47.68
335	141.33	0.250	47.68
340	141.33	0.250	47.68
345	141.33	0.250	47.68
350	141.33	0.250	47.68
355	141.33	0.250	47.68

Contour type : Ground Wave
Signal strength : 0.025 mV/m
Area covered : 52135.400 sq. mi
Population covered: 10362533 persons

Wspy am somonauk IL Coverage data 4-30-20

Azimuth Degrees	Field mV/m @ 1 kM	Contour mV/m	Distance kM
0	141.33	0.025	123.43
5	141.33	0.025	123.43
10	141.33	0.025	123.43
15	141.33	0.025	123.43
20	141.33	0.025	128.29
25	141.33	0.025	132.74
30	141.33	0.025	132.56
35	141.33	0.025	129.92
40	141.33	0.025	125.74
45	141.33	0.025	123.43
50	141.33	0.025	123.43
55	141.33	0.025	123.43
60	141.33	0.025	123.43
65	141.33	0.025	123.43
70	141.33	0.025	123.43
75	141.33	0.025	123.43
80	141.33	0.025	123.43
85	141.33	0.025	131.29
90	141.33	0.025	133.93
95	141.33	0.025	134.19
100	141.33	0.025	134.30
105	141.33	0.025	134.01
110	141.33	0.025	134.67
115	141.33	0.025	134.75
120	141.33	0.025	135.52
125	141.33	0.025	136.21
130	141.33	0.025	136.01
135	141.33	0.025	137.13
140	141.33	0.025	137.63
145	141.33	0.025	138.62
150	141.33	0.025	139.31
155	141.33	0.025	140.46
160	141.33	0.025	141.77
165	141.33	0.025	143.36
170	141.33	0.025	145.18
175	141.33	0.025	145.28
180	141.33	0.025	143.53
185	141.33	0.025	141.13
190	141.33	0.025	138.57
195	141.33	0.025	135.92
200	141.33	0.025	132.92
205	141.33	0.025	128.80
210	141.33	0.025	123.43
215	141.33	0.025	123.43
220	141.33	0.025	123.43
225	141.33	0.025	123.43
230	141.33	0.025	123.43
235	141.33	0.025	123.43
240	141.33	0.025	123.43
245	141.33	0.025	123.43
250	141.33	0.025	123.43
255	141.33	0.025	123.43
260	141.33	0.025	123.43
265	141.33	0.025	123.43
270	141.33	0.025	123.43
275	141.33	0.025	123.43
280	141.33	0.025	123.43
285	141.33	0.025	123.43
290	141.33	0.025	123.43
295	141.33	0.025	123.43

300	141.33	0.025	123.43
305	141.33	0.025	123.43
310	141.33	0.025	123.43
315	141.33	0.025	123.43
320	141.33	0.025	123.43
325	141.33	0.025	123.43
330	141.33	0.025	123.43
335	141.33	0.025	123.43
340	141.33	0.025	123.43
345	141.33	0.025	123.43
350	141.33	0.025	123.43
355	141.33	0.025	123.43

Contour type : Ground Wave
Signal strength : 0.500 mV/m
Area covered : 4049.100 sq. mi
Population covered: 564672 persons

Azimuth Degrees	Field mV/m @ 1 kM	Contour mV/m	Distance kM
0	141.33	0.500	35.60
5	141.33	0.500	35.60
10	141.33	0.500	35.60
15	141.33	0.500	35.60
20	141.33	0.500	35.60
25	141.33	0.500	35.60
30	141.33	0.500	35.60
35	141.33	0.500	35.60
40	141.33	0.500	35.60
45	141.33	0.500	35.60
50	141.33	0.500	35.60
55	141.33	0.500	35.60
60	141.33	0.500	35.60
65	141.33	0.500	35.60
70	141.33	0.500	35.60
75	141.33	0.500	35.60
80	141.33	0.500	35.60
85	141.33	0.500	35.60
90	141.33	0.500	35.60
95	141.33	0.500	35.60
100	141.33	0.500	35.73
105	141.33	0.500	36.03
110	141.33	0.500	37.28
115	141.33	0.500	37.51
120	141.33	0.500	38.28
125	141.33	0.500	38.66
130	141.33	0.500	38.09
135	141.33	0.500	38.52
140	141.33	0.500	38.00
145	141.33	0.500	37.90
150	141.33	0.500	37.16
155	141.33	0.500	36.44
160	141.33	0.500	36.01
165	141.33	0.500	35.60
170	141.33	0.500	35.60
175	141.33	0.500	35.60
180	141.33	0.500	35.60
185	141.33	0.500	35.60
190	141.33	0.500	35.60
195	141.33	0.500	35.60
200	141.33	0.500	35.60
205	141.33	0.500	35.60
210	141.33	0.500	35.60

215	141.33	0.500	35.60
220	141.33	0.500	35.60
225	141.33	0.500	35.60
230	141.33	0.500	35.60
235	141.33	0.500	35.60
240	141.33	0.500	35.60
245	141.33	0.500	35.60
250	141.33	0.500	35.60
255	141.33	0.500	35.60
260	141.33	0.500	35.60
265	141.33	0.500	35.60
270	141.33	0.500	35.60
275	141.33	0.500	35.60
280	141.33	0.500	35.60
285	141.33	0.500	35.60
290	141.33	0.500	35.60
295	141.33	0.500	35.60
300	141.33	0.500	35.60
305	141.33	0.500	35.60
310	141.33	0.500	35.60
315	141.33	0.500	35.60
320	141.33	0.500	35.60
325	141.33	0.500	35.60
330	141.33	0.500	35.60
335	141.33	0.500	35.60
340	141.33	0.500	35.60
345	141.33	0.500	35.60
350	141.33	0.500	35.60
355	141.33	0.500	35.60

Contour type : Ground Wave
Signal strength : 5.000 mV/m
Area covered : 426.400 sq. mi
Population covered: 32580 persons

Azimuth Degrees	Field mV/m @ 1 kM	Contour mV/m	Distance kM
0	141.33	5.000	11.66
5	141.33	5.000	11.66
10	141.33	5.000	11.66
15	141.33	5.000	11.66
20	141.33	5.000	11.66
25	141.33	5.000	11.66
30	141.33	5.000	11.66
35	141.33	5.000	11.66
40	141.33	5.000	11.66
45	141.33	5.000	11.66
50	141.33	5.000	11.66
55	141.33	5.000	11.66
60	141.33	5.000	11.66
65	141.33	5.000	11.66
70	141.33	5.000	11.66
75	141.33	5.000	11.66
80	141.33	5.000	11.66
85	141.33	5.000	11.66
90	141.33	5.000	11.66
95	141.33	5.000	11.66
100	141.33	5.000	11.66
105	141.33	5.000	11.66
110	141.33	5.000	11.66
115	141.33	5.000	11.66
120	141.33	5.000	11.66
125	141.33	5.000	11.66

130	141.33	5.000	11.66
135	141.33	5.000	11.66
140	141.33	5.000	11.66
145	141.33	5.000	11.66
150	141.33	5.000	11.66
155	141.33	5.000	11.66
160	141.33	5.000	11.66
165	141.33	5.000	11.66
170	141.33	5.000	11.66
175	141.33	5.000	11.66
180	141.33	5.000	11.66
185	141.33	5.000	11.66
190	141.33	5.000	11.66
195	141.33	5.000	11.66
200	141.33	5.000	11.66
205	141.33	5.000	11.66
210	141.33	5.000	11.66
215	141.33	5.000	11.66
220	141.33	5.000	11.66
225	141.33	5.000	11.66
230	141.33	5.000	11.66
235	141.33	5.000	11.66
240	141.33	5.000	11.66
245	141.33	5.000	11.66
250	141.33	5.000	11.66
255	141.33	5.000	11.66
260	141.33	5.000	11.66
265	141.33	5.000	11.66
270	141.33	5.000	11.66
275	141.33	5.000	11.66
280	141.33	5.000	11.66
285	141.33	5.000	11.66
290	141.33	5.000	11.66
295	141.33	5.000	11.66
300	141.33	5.000	11.66
305	141.33	5.000	11.66
310	141.33	5.000	11.66
315	141.33	5.000	11.66
320	141.33	5.000	11.66
325	141.33	5.000	11.66
330	141.33	5.000	11.66
335	141.33	5.000	11.66
340	141.33	5.000	11.66
345	141.33	5.000	11.66
350	141.33	5.000	11.66
355	141.33	5.000	11.66

Contour type : Ground Wave
Signal strength : 25.000 mV/m
Area covered : 48.800 sq. mi
Population covered: 7638 persons

Azimuth Degrees	Field mV/m @ 1 kM	Contour mV/m	Distance kM
0	141.33	25.000	3.94
5	141.33	25.000	3.94
10	141.33	25.000	3.94
15	141.33	25.000	3.94
20	141.33	25.000	3.94
25	141.33	25.000	3.94
30	141.33	25.000	3.94
35	141.33	25.000	3.94
40	141.33	25.000	3.94

45	141.33	25.000	3.94
50	141.33	25.000	3.94
55	141.33	25.000	3.94
60	141.33	25.000	3.94
65	141.33	25.000	3.94
70	141.33	25.000	3.94
75	141.33	25.000	3.94
80	141.33	25.000	3.94
85	141.33	25.000	3.94
90	141.33	25.000	3.94
95	141.33	25.000	3.94
100	141.33	25.000	3.94
105	141.33	25.000	3.94
110	141.33	25.000	3.94
115	141.33	25.000	3.94
120	141.33	25.000	3.94
125	141.33	25.000	3.94
130	141.33	25.000	3.94
135	141.33	25.000	3.94
140	141.33	25.000	3.94
145	141.33	25.000	3.94
150	141.33	25.000	3.94
155	141.33	25.000	3.94
160	141.33	25.000	3.94
165	141.33	25.000	3.94
170	141.33	25.000	3.94
175	141.33	25.000	3.94
180	141.33	25.000	3.94
185	141.33	25.000	3.94
190	141.33	25.000	3.94
195	141.33	25.000	3.94
200	141.33	25.000	3.94
205	141.33	25.000	3.94
210	141.33	25.000	3.94
215	141.33	25.000	3.94
220	141.33	25.000	3.94
225	141.33	25.000	3.94
230	141.33	25.000	3.94
235	141.33	25.000	3.94
240	141.33	25.000	3.94
245	141.33	25.000	3.94
250	141.33	25.000	3.94
255	141.33	25.000	3.94
260	141.33	25.000	3.94
265	141.33	25.000	3.94
270	141.33	25.000	3.94
275	141.33	25.000	3.94
280	141.33	25.000	3.94
285	141.33	25.000	3.94
290	141.33	25.000	3.94
295	141.33	25.000	3.94
300	141.33	25.000	3.94
305	141.33	25.000	3.94
310	141.33	25.000	3.94
315	141.33	25.000	3.94
320	141.33	25.000	3.94
325	141.33	25.000	3.94
330	141.33	25.000	3.94
335	141.33	25.000	3.94
340	141.33	25.000	3.94
345	141.33	25.000	3.94
350	141.33	25.000	3.94
355	141.33	25.000	3.94

Wspy am somonauk IL Coverage data 4-30-20

Contour type : Ground Wave
Signal strength : 1000.000 mV/m
Area covered : 0.100 sq. mi
Population covered: 0 persons

Azimuth Degrees	Field mV/m @ 1 kM	Contour mV/m	Distance kM
0	141.33	1000.000	0.14
5	141.33	1000.000	0.14
10	141.33	1000.000	0.14
15	141.33	1000.000	0.14
20	141.33	1000.000	0.14
25	141.33	1000.000	0.14
30	141.33	1000.000	0.14
35	141.33	1000.000	0.14
40	141.33	1000.000	0.14
45	141.33	1000.000	0.14
50	141.33	1000.000	0.14
55	141.33	1000.000	0.14
60	141.33	1000.000	0.14
65	141.33	1000.000	0.14
70	141.33	1000.000	0.14
75	141.33	1000.000	0.14
80	141.33	1000.000	0.14
85	141.33	1000.000	0.14
90	141.33	1000.000	0.14
95	141.33	1000.000	0.14
100	141.33	1000.000	0.14
105	141.33	1000.000	0.14
110	141.33	1000.000	0.14
115	141.33	1000.000	0.14
120	141.33	1000.000	0.14
125	141.33	1000.000	0.14
130	141.33	1000.000	0.14
135	141.33	1000.000	0.14
140	141.33	1000.000	0.14
145	141.33	1000.000	0.14
150	141.33	1000.000	0.14
155	141.33	1000.000	0.14
160	141.33	1000.000	0.14
165	141.33	1000.000	0.14
170	141.33	1000.000	0.14
175	141.33	1000.000	0.14
180	141.33	1000.000	0.14
185	141.33	1000.000	0.14
190	141.33	1000.000	0.14
195	141.33	1000.000	0.14
200	141.33	1000.000	0.14
205	141.33	1000.000	0.14
210	141.33	1000.000	0.14
215	141.33	1000.000	0.14
220	141.33	1000.000	0.14
225	141.33	1000.000	0.14
230	141.33	1000.000	0.14
235	141.33	1000.000	0.14
240	141.33	1000.000	0.14
245	141.33	1000.000	0.14
250	141.33	1000.000	0.14
255	141.33	1000.000	0.14
260	141.33	1000.000	0.14
265	141.33	1000.000	0.14
270	141.33	1000.000	0.14

275	141.33	1000.000	0.14
280	141.33	1000.000	0.14
285	141.33	1000.000	0.14
290	141.33	1000.000	0.14
295	141.33	1000.000	0.14
300	141.33	1000.000	0.14
305	141.33	1000.000	0.14
310	141.33	1000.000	0.14
315	141.33	1000.000	0.14
320	141.33	1000.000	0.14
325	141.33	1000.000	0.14
330	141.33	1000.000	0.14
335	141.33	1000.000	0.14
340	141.33	1000.000	0.14
345	141.33	1000.000	0.14
350	141.33	1000.000	0.14
355	141.33	1000.000	0.14

Contour type : Ground Wave
Signal strength : 2.000 mV/m
Area covered : 1132.800 sq. mi
Population covered: 66971 persons

Azimuth Degrees	Field mV/m @ 1 kM	Contour mV/m	Distance kM
0	141.33	2.000	19.00
5	141.33	2.000	19.00
10	141.33	2.000	19.00
15	141.33	2.000	19.00
20	141.33	2.000	19.00
25	141.33	2.000	19.00
30	141.33	2.000	19.00
35	141.33	2.000	19.00
40	141.33	2.000	19.00
45	141.33	2.000	19.00
50	141.33	2.000	19.00
55	141.33	2.000	19.00
60	141.33	2.000	19.00
65	141.33	2.000	19.00
70	141.33	2.000	19.00
75	141.33	2.000	19.00
80	141.33	2.000	19.00
85	141.33	2.000	19.00
90	141.33	2.000	19.00
95	141.33	2.000	19.00
100	141.33	2.000	19.00
105	141.33	2.000	19.00
110	141.33	2.000	19.00
115	141.33	2.000	19.00
120	141.33	2.000	19.00
125	141.33	2.000	19.00
130	141.33	2.000	19.00
135	141.33	2.000	19.00
140	141.33	2.000	19.00
145	141.33	2.000	19.00
150	141.33	2.000	19.00
155	141.33	2.000	19.00
160	141.33	2.000	19.00
165	141.33	2.000	19.00
170	141.33	2.000	19.00
175	141.33	2.000	19.00
180	141.33	2.000	19.00
185	141.33	2.000	19.00

190	141.33	2.000	19.00
195	141.33	2.000	19.00
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270	141.33	2.000	19.00
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280	141.33	2.000	19.00
285	141.33	2.000	19.00
290	141.33	2.000	19.00
295	141.33	2.000	19.00
300	141.33	2.000	19.00
305	141.33	2.000	19.00
310	141.33	2.000	19.00
315	141.33	2.000	19.00
320	141.33	2.000	19.00
325	141.33	2.000	19.00
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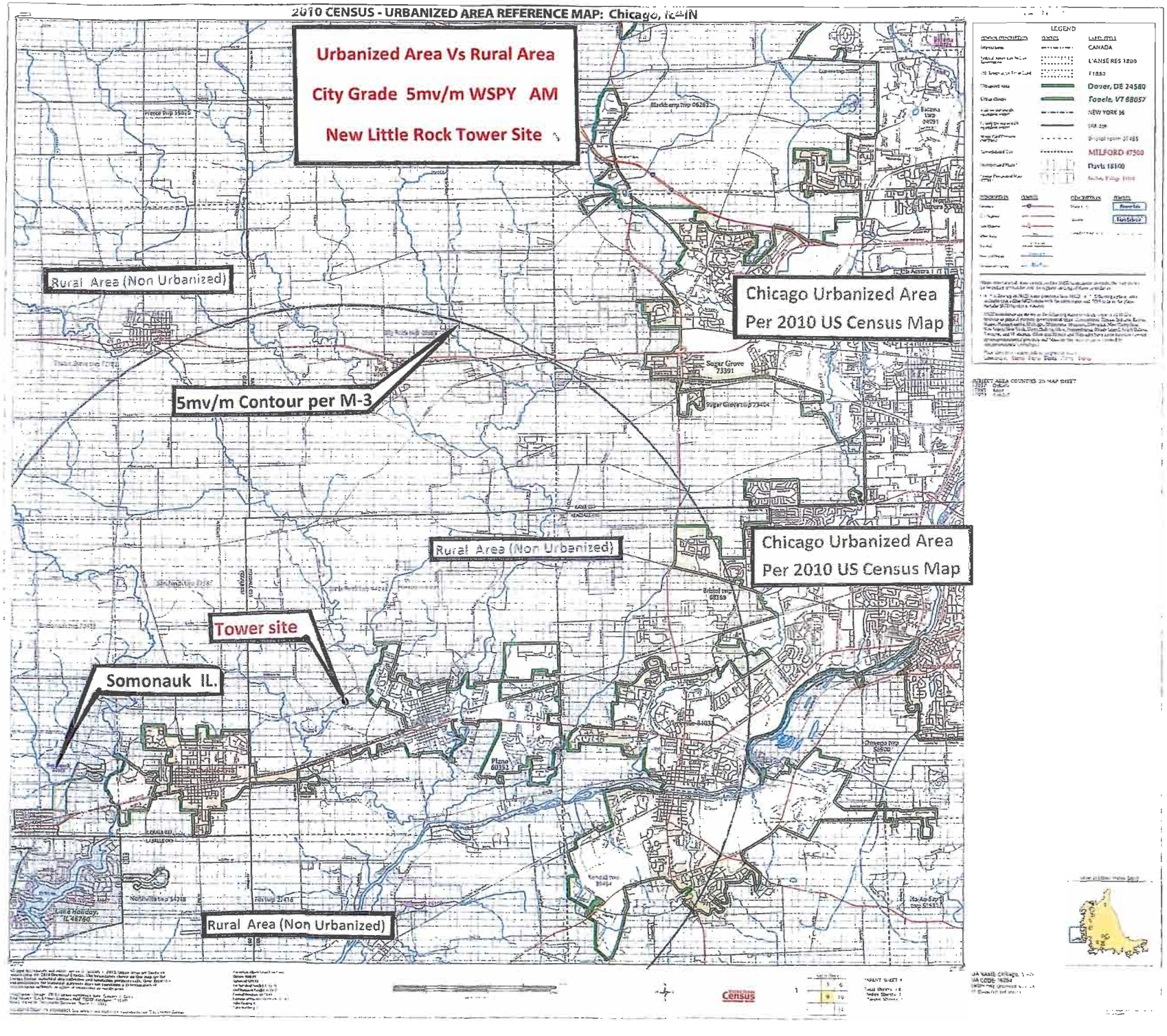
335	141.33	2.000	19.00
340	141.33	2.000	19.00
345	141.33	2.000	19.00
350	141.33	2.000	19.00
355	141.33	2.000	19.00


2010 CENSUS - URBANIZED AREA REFERENCE MAP: Chicago, IL-IN
Urbanized Area Vs Rural Area
City Grade 5mv/m WSPY AM
New Little Rock Tower Site
Rural Area (Non Urbanized)
Chicago Urbanized Area
Per 2010 US Census Map
5mv/m Contour per M-3
Rural Area (Non Urbanized)
Chicago Urbanized Area
Per 2010 US Census Map
Tower site
Somonauk IL.
Rural Area (Non Urbanized)
LEGEND
CANADA
Dover, DE 24580
Topeka, VT 88057
MILFORD 47500
Davis 18100

Google Maps

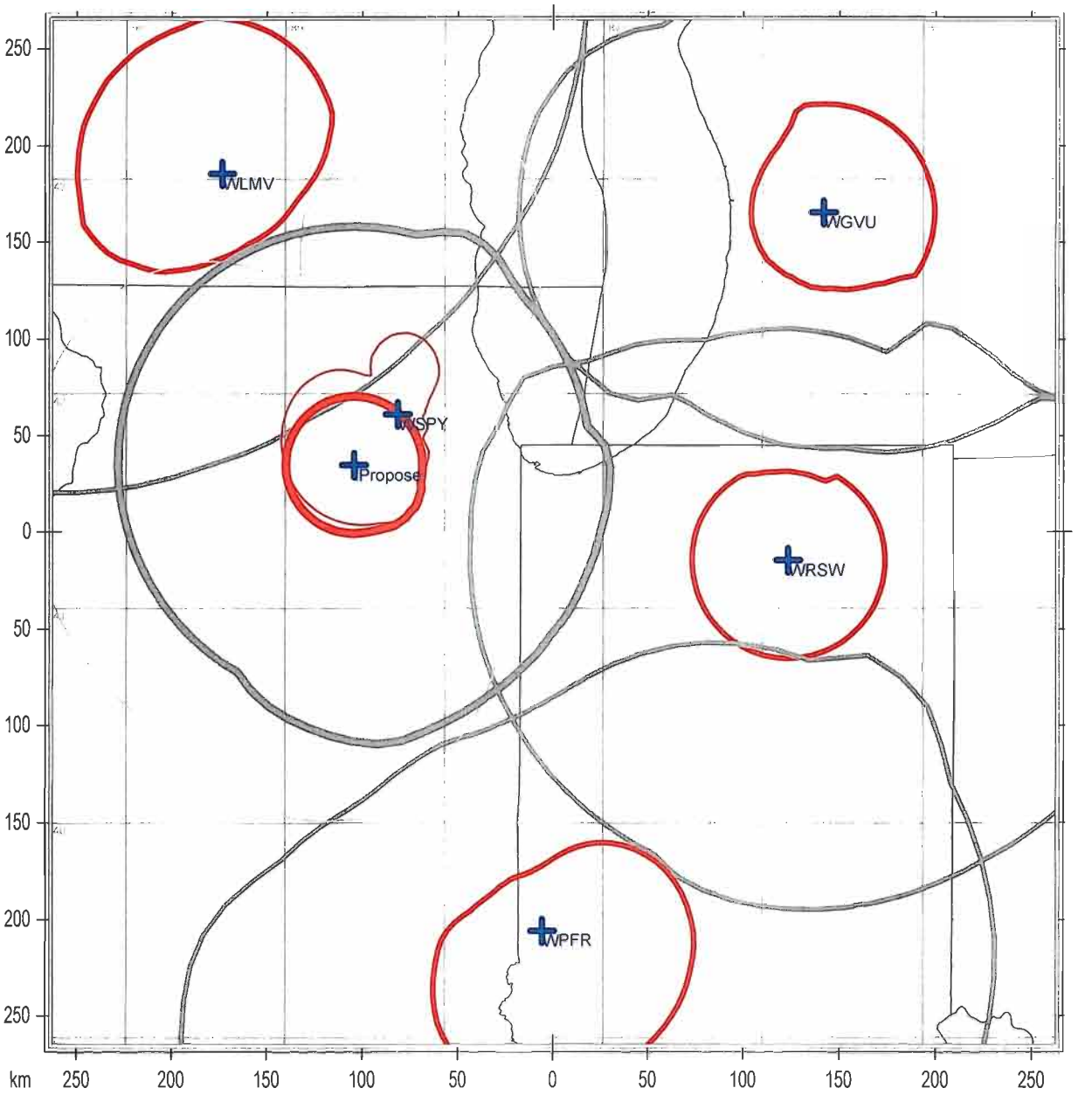
Somonauk

5MV/M Coverage

over Somonauk IL. 7.24 mi.

Imagery ©2020 Landsat / Copernicus, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2020 2000 ft

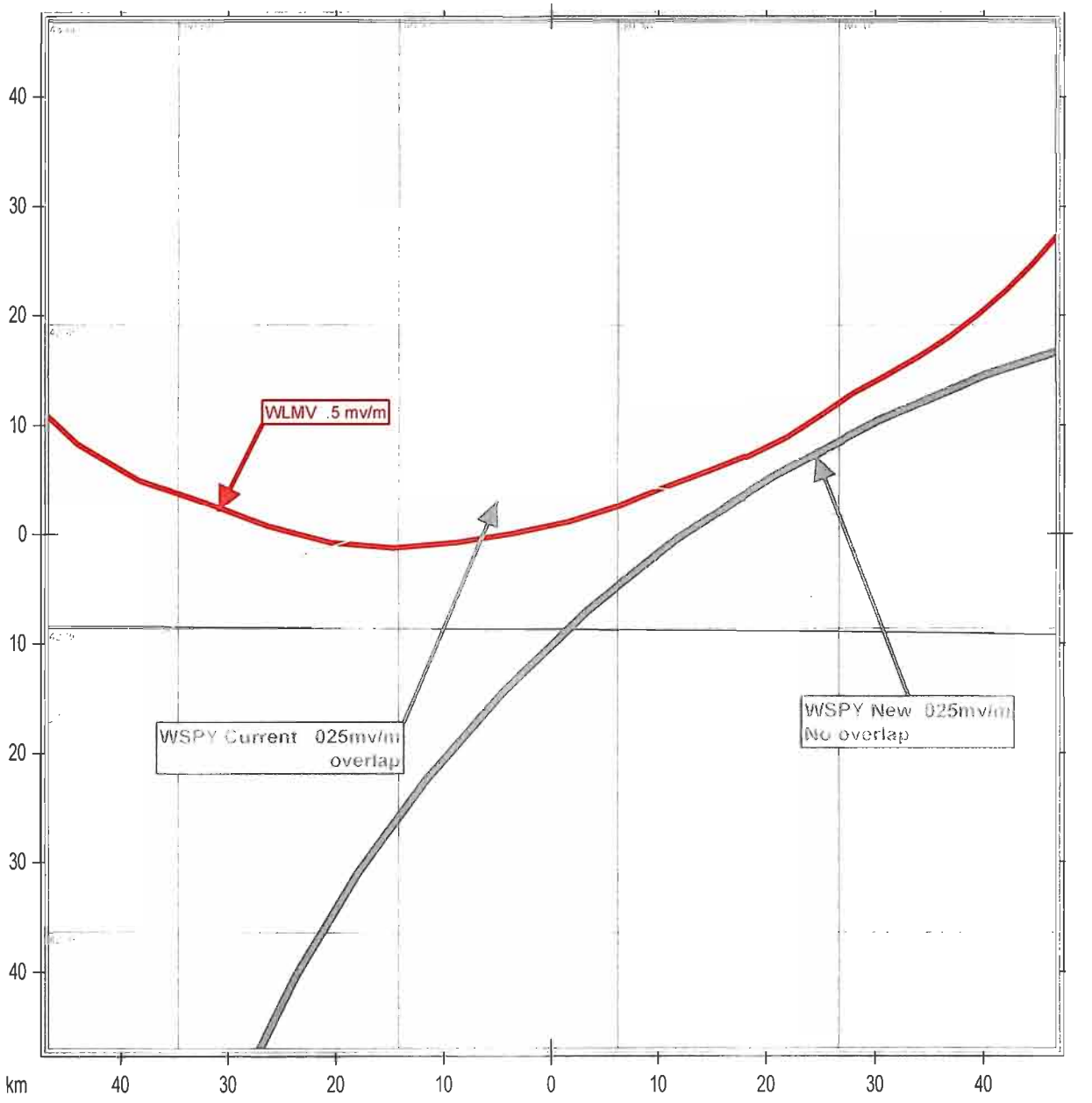
WSPY 1480 New Co Channel



Co Channel Gray = .025 Red = .5 mv/m

State Borders Lat/Lon Grid

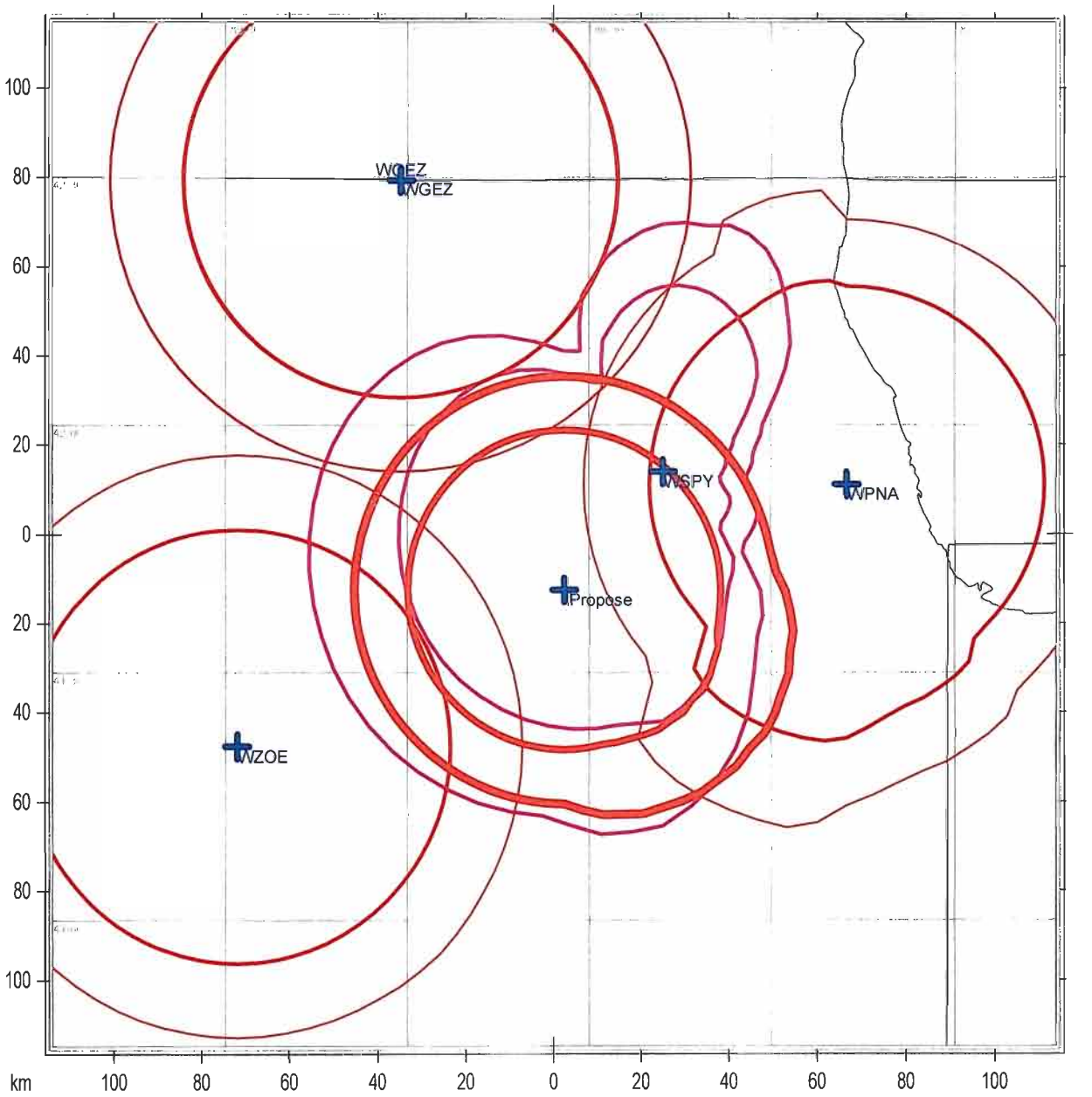
WSPY 1480 New Co Channel to WLMV



Co Channel Gray = .025 Red = .5 mv/m

State Borders Lat/Lon Grid

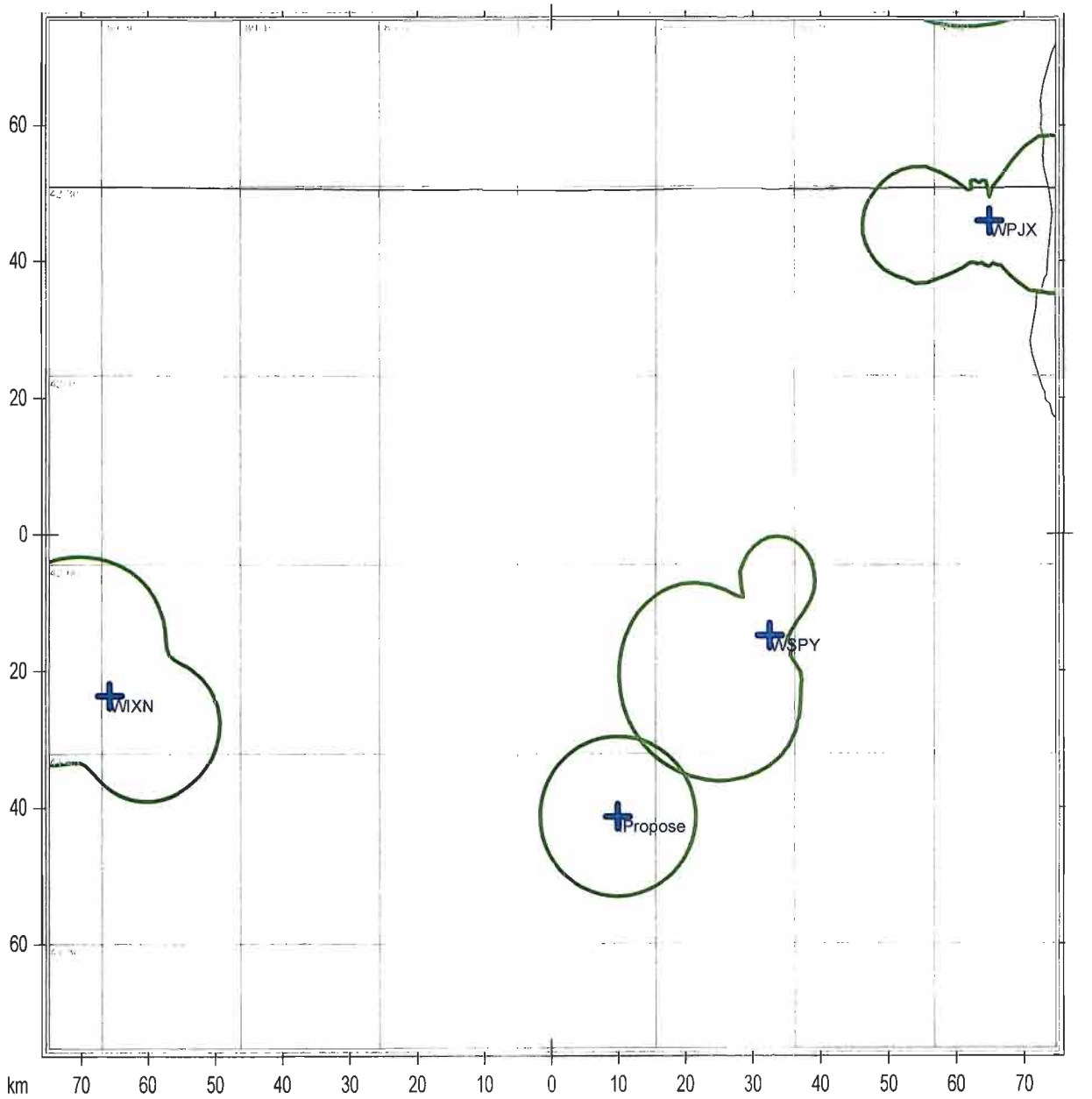
WSPY 1480 Somonauk First adj. 1470 and 1490 Khz



Red thick = .5mv/m Thin Red = .25mv/m Pink = Current lic.

State Borders Lat/Lon Grid

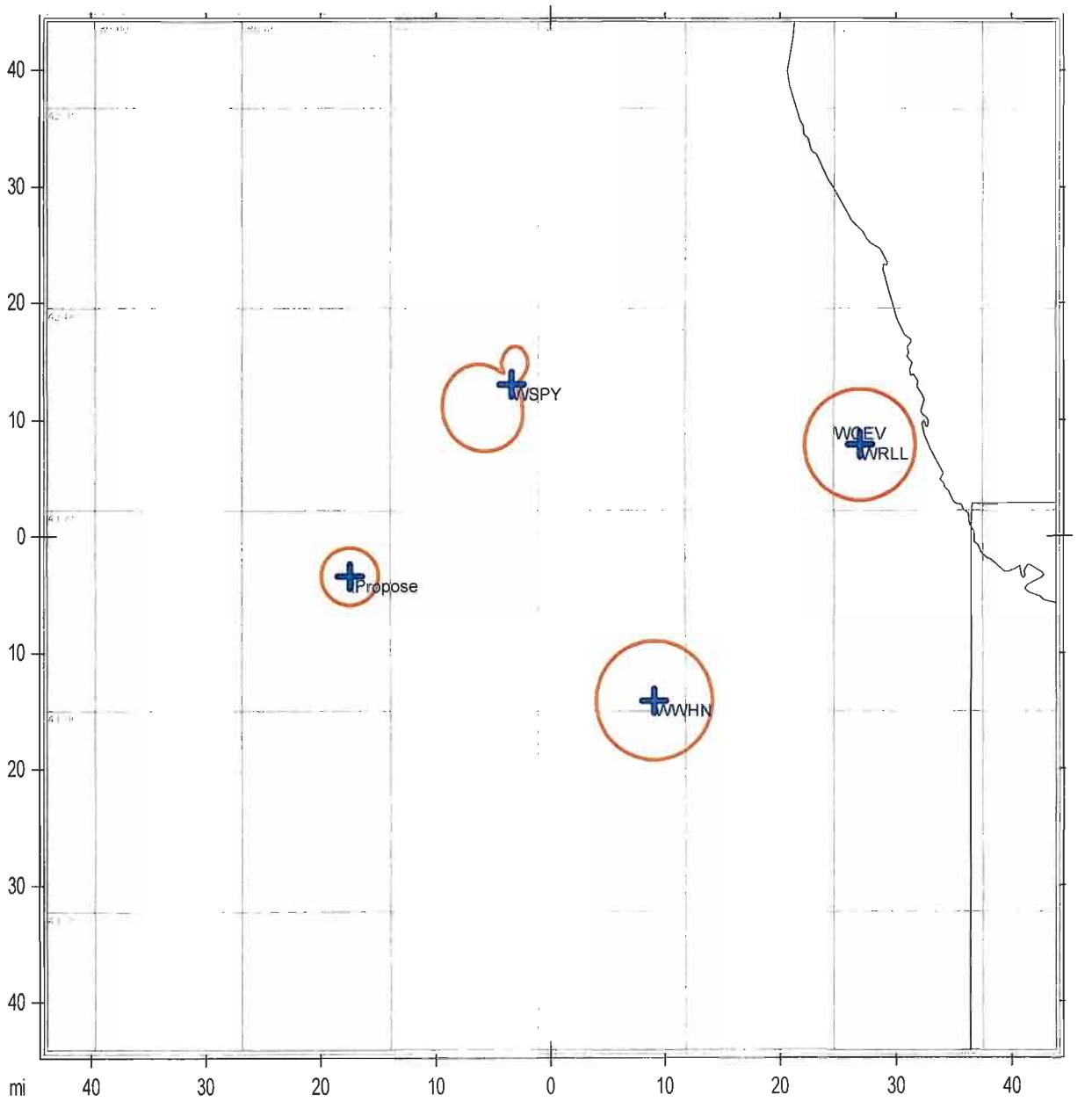
1480 WSPY Current & Proposed & 1460 Khz &1500Khz



Green = 5 mv/m M-3

State Borders Lat/Lon Grid

1480 WSPY Proposed 1450 Khz & 1510 Khz



Orange = 25 mv/m M-3

State Borders Lat/Lon Grid

SUMMARY

WSPY-AM INTERFERENCE REDUCTION

Based on 2010 Census

February 2020

WSPY requests to change technical facilities and City of License from the Chicago Urbanized area to a Rural area will result in a total interference reduction to 1,598,980 population.

On the Co-Channel of 1480 kHz a reduction of given interference will decrease by 9,652 population to "0" population and 72.64 sq km to area of "0" sq km.

Received interference on Co-Channel 1480 kHz will be reduced by 171,353 population to 34,577 and 968.24 sq km to 72.84 sq km.

Total co-channel population reduction in interference is 181,005 population.

Reduction in given and received interference on 1st adjacent of 1480 kHz (1470 + 1490 kHz).

Reduction in given interference will decrease (.25 mv/m 1480 to .5 mv/m 1st adj) by 512,731 population and 1,040.61 sq km.

Received interference will be reduced by (.25 mv/m 1st adj to 1480 kHz) 905,244 population and 1,843.6 sq km.

WSPY INTERFERENCE REDUCTION STUDY
February 2020

CO-CHANNEL

To WLMV 1480 kHz .5 mv/m From:

WSPY Lic	.025 mv/m	9,652 pop	72.64 KM
New	.025 mv/m	0	0
Reduction		9,652 pop	72.64 KM

FROM: WLMV 1480 kHz .025 mv/m To:

WSPY Lic	.5 mv/m	205,930 pop	1,041.08 KM
New	.5 mv/m	34,577 pop	72.84 KM
Reduction		171,353 pop	968.24 KM

TOTAL CO-CHANNEL INTERFERENCE REDUCTION

181,005 Population

1,040.88 Sq km

WSPY INTERFERENCE REDUCTION STUDY
February 2020

1st ADJACENCY

To WGEZ 1490 kHz .5 mv/m From:

WSPY Lic	.25 mv/m	5,723 pop	320.44 KM
New	.25 mv/m	0	0
Reduction		5,723 pop	320.44 KM

FROM: WGEZ 1490 kHz .25 mv/m To:

WSPY Lic	.5 mv/m	108,439 pop	688.9 KM
New	.5 mv/m	16,871 pop	22.48 KM
Reduction		91,568 pop	666.42 KM

TOTAL 1st Adj (WGEZ 1490) INTERFERENCE REDUCTION

97,291 Population

986.86 Sq km

WSPY INTERFERENCE REDUCTION STUDY
February 2020

1st ADJACENCY

To WPNA 1490 kHz .5 mv/m From:

WSPY Lic	.25 mv/m	1,433,206 pop	1,698.77 KM
New	.25 mv/m	933,889 pop	1,353.93 KM
Reduction		499,317 pop	344.84 KM

FROM: WPNA 1490 kHz .25 mv/m To:

WSPY Lic	.5 mv/m	1,267,990 pop	2,568.80 KM
New	.5 mv/m	453,357 pop	1,298.51 KM
Reduction		814,633 pop	1,270.29 KM

TOTAL 1st Adj (WPNA 1490) INTERFERENCE REDUCTION

1,313,950 Population

1,615.13 Sq km

WSPY INTERFERENCE REDUCTION STUDY
February 2020

1st ADJACENCY

To WZOE 1490 kHz .5 mv/m From:

WSPY Lic	.25 mv/m	13,196 pop	637.86 KM
New	.25 mv/m	5,505 pop	262.53 KM
Reduction		7,691 pop	375.33 KM

FROM: WZOE .25 mv/m To:

WSPY Lic	.5 mv/m	4,837 pop	290.88 KM
New	.5 mv/m	5,794 pop	383.99 KM
Reduction		(957) pop	(93.11) KM

TOTAL 1st Adj (WZOE 1490) INTERFERENCE REDUCTION

6,734 Population

282.22 Sq km

SUMMARY

WSPY-AM INTERFERENCE REDUCTION

Based on 2010 Census

February 2020

WSPY requests to change technical facilities and City of License from the Chicago Urbanized area to a Rural area will result in a total interference reduction to 1,598,980 population.

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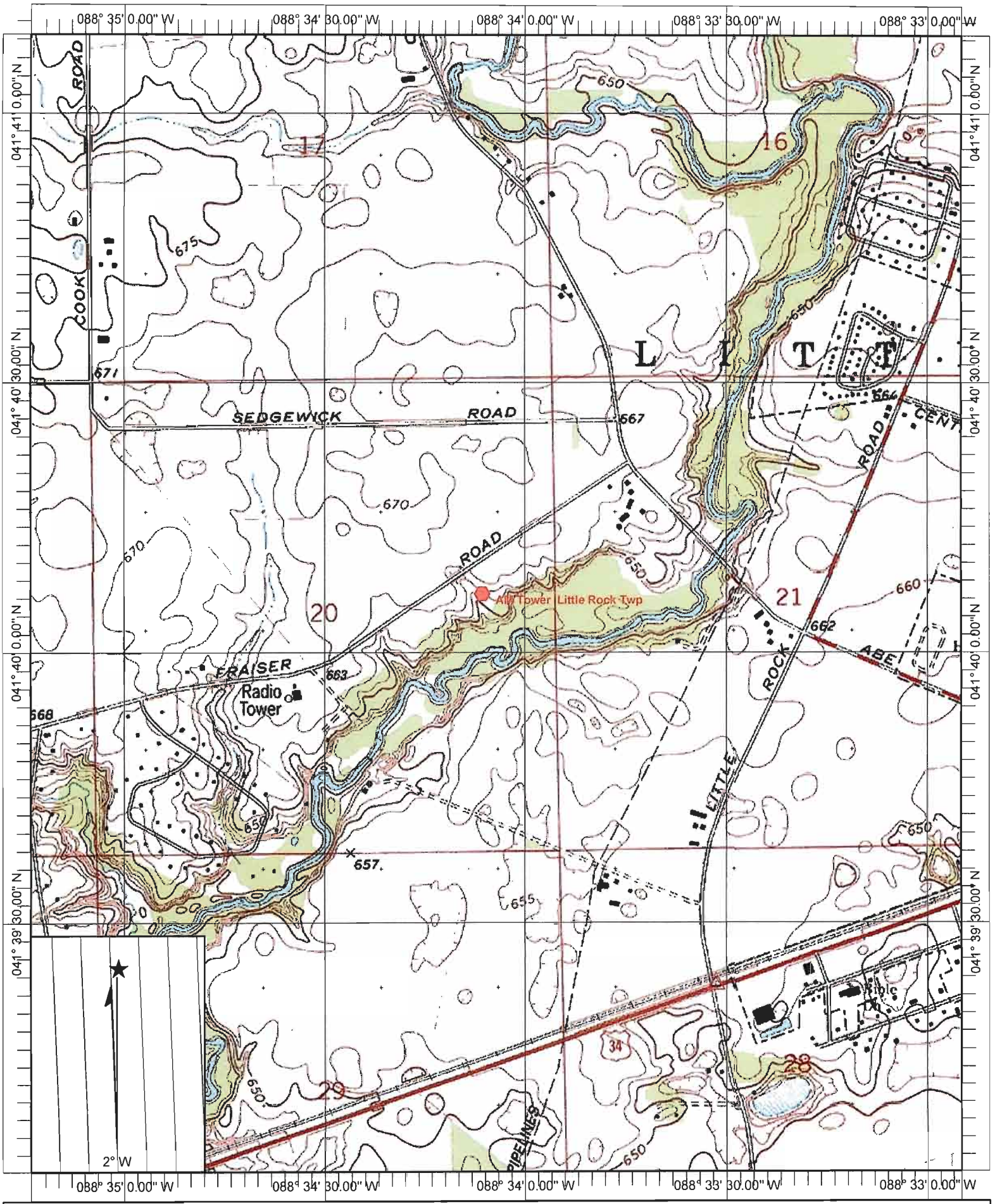
Received interference on Co-Channel 1480 kHz will be reduced by 171,353 population to 34,577 and 968.24 sq km to 72.84 sq km.

Total co-channel population reduction in interference is 181,005 population.

Reduction in given and received interference on 1st adjacent of 1480 kHz (1470 + 1490 kHz).

Reduction in given interference will decrease (.25 mv/m 1480 to .5 mv/m 1st adj) by 512,731 population and 1,040.61 sq km.

Received interference will be reduced by (.25 mv/m 1st adj to 1480 kHz) 905,244 population and 1,843.6 sq km.



Name: PLANO
Date: 1/31/2020
Scale: 1 inch equals 1333 feet

Location: 041° 40' 5.34" N 088° 34' 4.61" W
Caption: New Tower
41-40-06 n
88-34-06 w
660 ft amsl

Routes

Name: Rte1

Short Name: R00001

Distance: 32 miles, 987 feet

Number of Waypoint: 3

Name: Wpt1

Short Name: R01W01

Coordinates: 041° 36' 57.81" N, 088° 51' 47.63" W

Distance to next Waypoint: 1 mile, 1971 feet

Bearing to next Waypoint: 89 degrees (true)

Name: Wpt2

Short Name: R01W02

Coordinates: 041° 36' 58.60" N, 088° 50' 11.92" W

Distance to next Waypoint: 30 miles, 4295 feet

Bearing to next Waypoint: 85 degrees (true)

Name: Wpt3

Short Name: R01W03

Coordinates: 041° 39' 3.56" N, 088° 14' 30.46" W

Markers

Name: AM Tower Little Rock Twp

Short Name: AM LR

Coordinates: 041° 40' 6.62" N, 088° 34' 6.15" W

New Tower Little Rock Twp

January 31, 2020

Kendall County FEMA FIRM Panels

Street Centerlines

USA Flood Hazard Areas

1% Annual Chance Flood Hazard

Contours

Contour

Index Contour

1:2,040

0 0.01 0.03 0.05 mi

0 0.02 0.04 0.08 km

Kendall County Web GIS

Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2020-AGL-2874-OE

Issued Date: 03/20/2020

larry nelson
larry nelson
16524 Frazier Rd
Plano, IL 60545

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Tower WCSJ 1550 AM Tower
Location:	plano, IL
Latitude:	41-40-06.00N NAD 83
Longitude:	88-34-06.00W
Heights:	660 feet site elevation (SE)
	199 feet above ground level (AGL)
	859 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/ lighting are accomplished on a voluntary basis, we recommend it be installed in accordance with FAA Advisory circular 70/7460-1 L Change 2.

This determination expires on 09/20/2021 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (816) 329-2544, or William.M.Ratts@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2020-AGL-2874-OE.

Signature Control No: 430778801-434163463 (DNE)
Bill Ratts
Technician

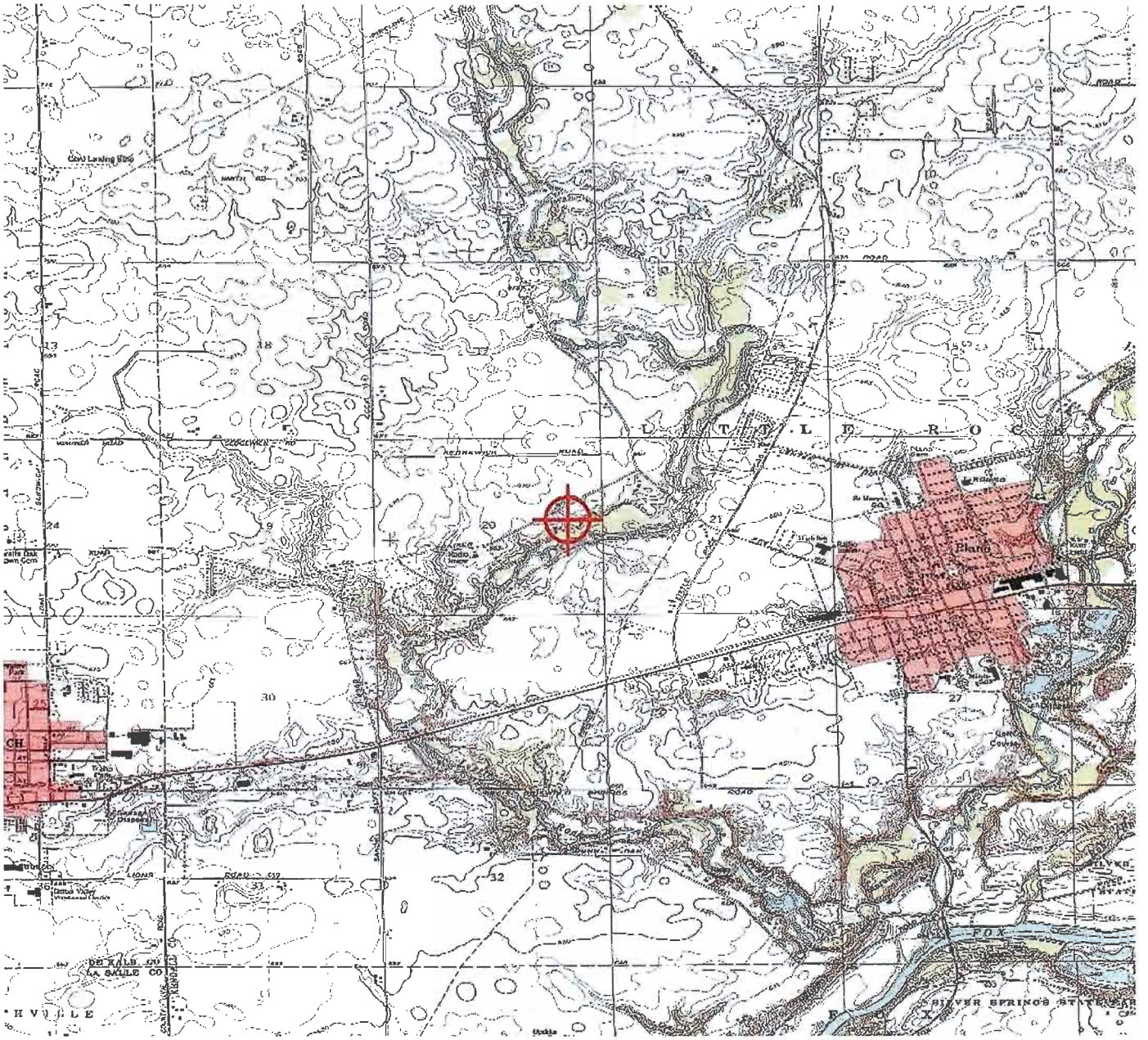
Attachment(s)
Frequency Data
Map(s)

cc: FCC

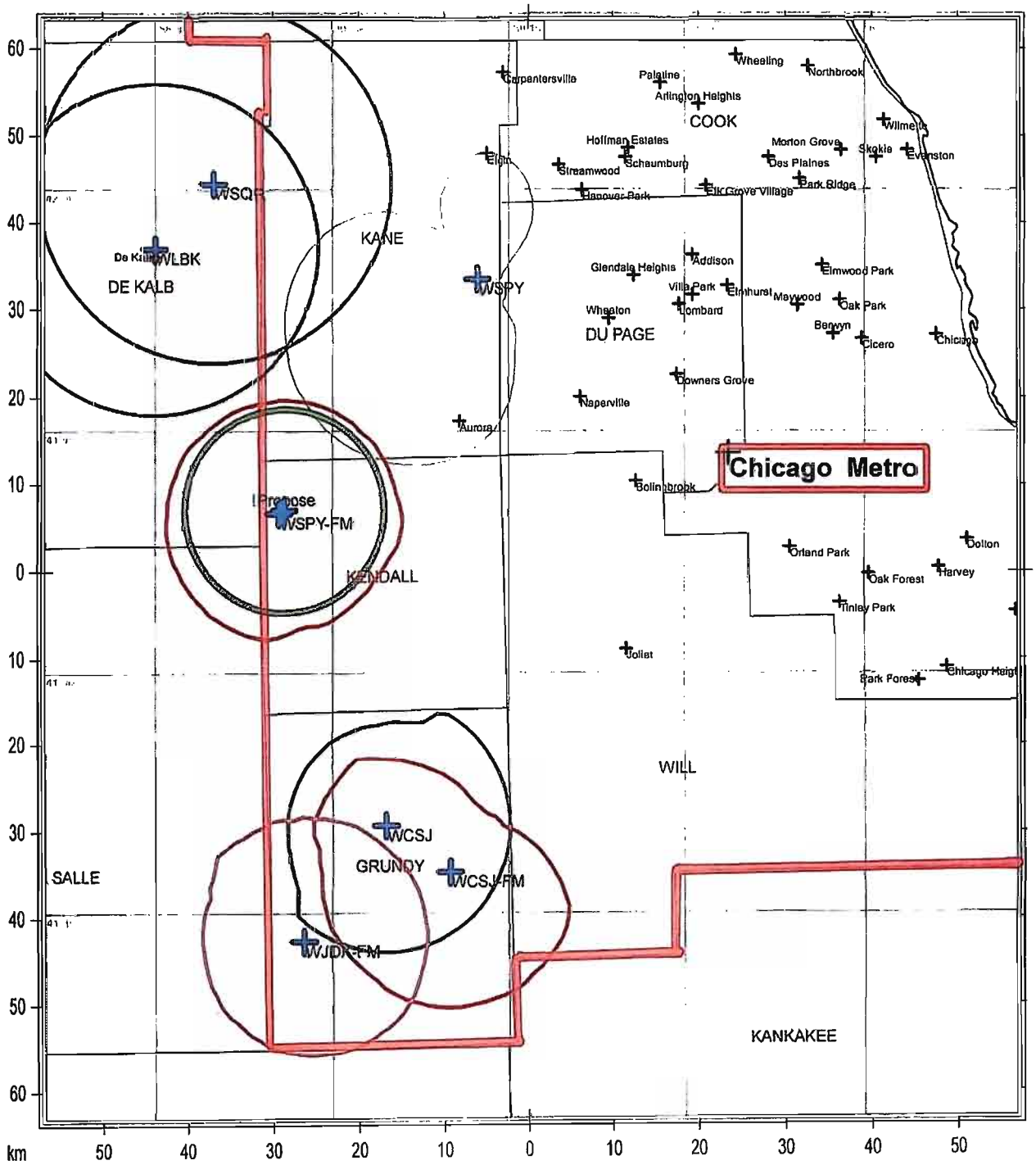
Frequency Data for ASN 2020-AGL-2874-OE

LOW FREQUENCY	HIGH FREQUENCY	FREQUENCY UNIT	ERP	ERP UNIT
1550	1550	kHz	1	kW

TOPO Map for ASN 2020-AGL-2874-OE



City Grade AM and FM- Ownership



Green = AM 5mv/m, Red=FM 70dbu,Gray = AM 5mv/m Current WSPY

County Borders State Borders Lat/Lon Grid