

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION
TO MODIFY CONSTRUCTION PERMIT
(LMAApplication 0000025394)
TO INCREASE EFFECTIVE RADIATED POWER
WSKC-CD, ATLANTA, GEORGIA
CHANNEL 14 15 KW MAX DA 404.7 M AMSL

OCTOBER 2017

This engineering statement has been prepared on behalf of KM LPTV of Atlanta, L.L.C. (“KM Comm”), licensee of Class A TV station WSKC-CD, Atlanta, Georgia and in support of its application for a modification of construction permit (LMApplication 0000025394) to increase effective radiated power (ERP) for operation on post-auction assigned TV channel 14.

At present station WSKC-CD, Facility ID Number 35090, operates on Channel 22 (518-524 MHz) with 15 kW effective radiated power (ERP), 404.7 meters antenna height above mean sea level and a directional TV antenna. WSKC-CD has been granted a construction permit (LMApplication 0000025394) to operate on post-suction assigned TV Channel 14 (470-476 MHz) with 12.3 kW ERP and 404.7 meters antenna height above mean sea level using a directional antenna.

WSKC-CD is now proposing to increase its ERP to a maximum of 15 kW using a directional antenna. No other changes to the authorized construction permit are proposed. An interference study conducted according to the new FCC computer program, TVSTUDY, indicates the proposed WSKC-CD operation with 15 kW ERP would not cause interference to other full-service TV, Class A TV and low power TV stations except WAGC-LP, Atlanta, Georgia. WAGC-LP currently operates on Channel 14 with 10 kW ERP and 615.3 meters antenna height above AMSL. Since WAGC-LP antenna site is located within the 51 dBu contour of the CP operation of WSKC-CD (see attached map, Figure 1), it will cause impermissible interference to the post-auction assigned operation of WSKC-CD on Channel 14. Therefore, WAGC-LP will have to be

displaced to another TV Channel for WSKC-CD to provide its authorized TV service on Channel 14.

The following information provides pertinent data for the proposed WSKC-CD operation.

Name of the licensee:	KM LPTV of Atlanta, L.L.C.	
Station Location:	GA-Atlanta	
Channel:	14 (470-476 MHz)	
Hours of Operation:	Unlimited	
Transmitter:	Type Accepted	
Antenna Type:	PSI, Model PSILP8CUS-14-CP, Elliptically Polarized	
Antenna Coordinates (NAD83):	North Latitude:	33 deg 58 min 38.3 sec
	West Longitude:	84 deg 09 min 23.3 sec
Maximum effective radiated power (Average):	15 kW (H)	
	11.76 dBk	
	4.5 kW (V)	
	6.5 dBk	
Elevation of the site above mean sea level:	324.3 meters	
Overall height of the tower above ground:	88.7 meters	
Height of radiation center above ground (meters):	80.4 meters	
Height of radiation center above mean sea level (meters):	404.7 meters	
Antenna Structure Registration Number:	1020086	

The attached environmental statement demonstrates that there will not be any significant environmental impact from the proposed Class A TV operation in accordance with 47 C.F.R. Section 73.1307.

The proposed WSKC-CD facility complies with Section 73.1030 of the Commission's rules; therefore, notification to radio astronomy installations, radio receiving installations and FCC monitoring stations is not required.

WSKC-CD would be operating from an existing tower which is registered (ASR No. 1020086) by the Commission and no changes are proposed to require a modification in the registration.

ENVIRONMENTAL PROTECTION ACT

Since WSKC-CD will be using an existing tower, (ASR No. 1020086), for its proposed Class A digital TV operation on Channel 14 the environmental concerns listed in Section 1.1307(a) of the Commission's rules are not pertinent; therefore, those issues have not been addressed.

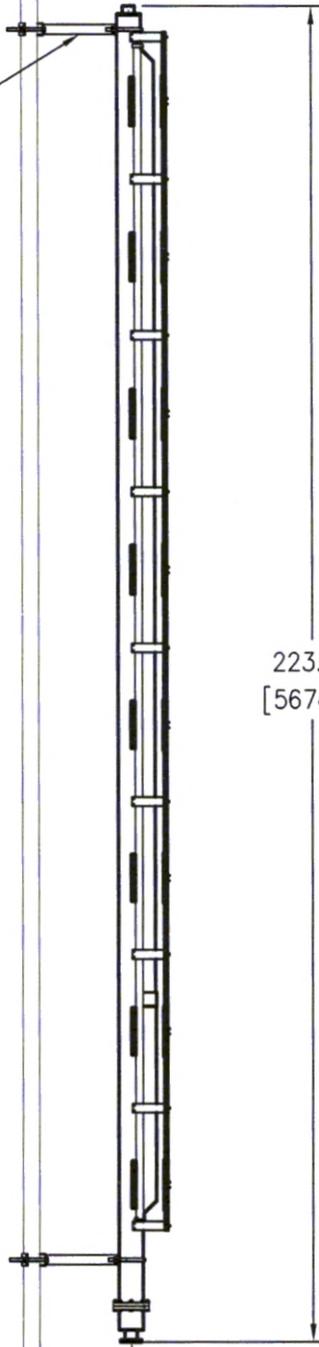
An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 15 kW and a radiation center of 80.4 meters above ground level, the proposed Channel 14 TV operation would have less than 6 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.25 in the downward direction.

The Commission's guidelines for Channel 14 are $1,567 \mu\text{W}/\text{cm}^2$ for the occupational/controlled, and $313 \mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the WSKC-CD operation would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, WSKC-CD will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.

LPTV MOUNTING BRACKET
41-00131 (2) PLACES



223.20
[567cm]

TOWER LEG OR VERTICAL
MAST WITH A DIAMETER OF
1½" TO 4"

1-5/8 EIA INPUT

WSKC SPECIFICATIONS	
LENGTH:	18.6 FT [5.67m]
RATING:	5 kW
H-POL GAIN:	26.57 (14.24 dB)
V-POL GAIN:	7.94 (9.0 dB)
WEIGHT:	119 LB [53.98 Kg]
WINDAREA:	23 FT ² [2.14 m ²]
TIA-222-F (NO ICE)	

A	B.K.SCHILLING	3/28/17	CHANGED V-POL BY 30%
REV.	MADE BY CHECKED BY	DATE	CHANGE

PROPAGATION SYSTEMS, INC.

Ebensburg, Pennsylvania USA 814-472-5540

ANTENNA PRELIMINARY ELEVATION AND SPECIFICATIONS

MODEL:	PSILP8CUS-14-CP	DRAWN BY:	B.K.SCHILLING	DATE:	3/13/17
CHANNEL/ FREQUENCY:	CH-14	APPROVED BY:		DATE:	
SCALE:		DRAWING NO.:	PR2164-A	REV.	A

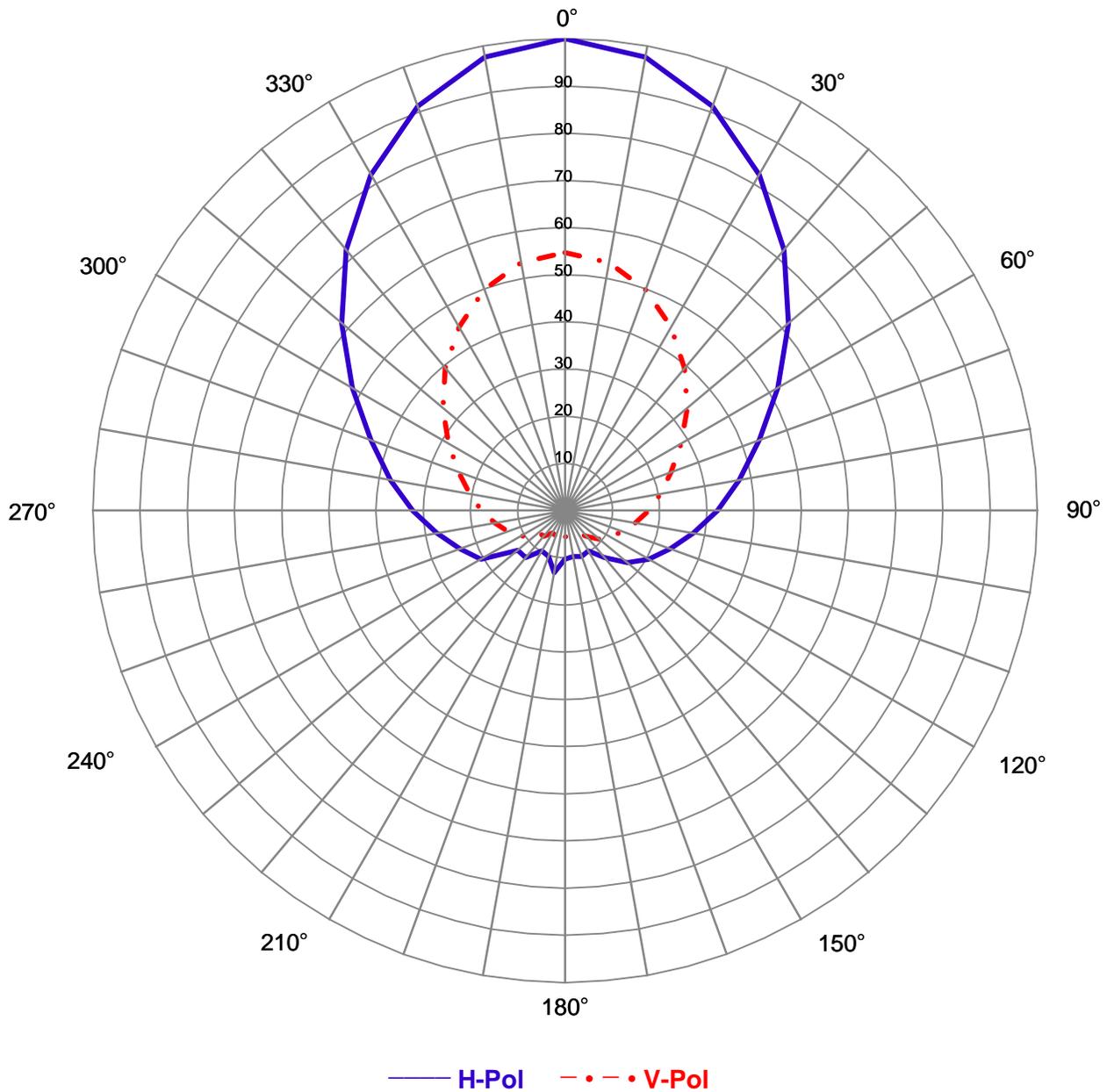
This drawing is loaned subject to the express understanding and agreement that the drawing and information therein contained are, and shall remain the property of PSI, and will not be otherwise utilized or disposed of, directly or indirectly, and will not be used in whole or in part or assist in making or finish any information for the making of drawings, prints or other reproductions hereof, or for the design or making of any item, parts, object, apparatus or parts thereof, except upon the written permissions of PSI first obtained. The acceptance of this drawing will be construed as an acceptance of the forgoing agreement.

SIZE

A



Relative Field Azimuth Plane Pattern



Pattern Type:	Relative Field	Type:	8-Bay Custom Slot
Antenna Model:	PSILP8CUS-14-CP	Channel:	14
Polarization:	Elliptical	Station:	WSKC
Gain (h-pol):	26.57 (14.24 dB)	Location:	Atlanta, GA
Gain (v-pol):	7.94 (9.0 dB)	Date:	3/30/2017

Relative Field Tabulation

Antenna: PSILP8CUS-14-CP

Gain: 26.57 (14.24 dB)

Station: WSKC

Channel: 14

Horizontal Polarization

Angle	Relative Field	Power Gain	Gain (dB)
0	1.000	26.57	14.24
10	0.976	25.31	14.03
20	0.912	22.10	13.44
30	0.822	17.95	12.54
40	0.721	13.81	11.40
50	0.617	10.11	10.05
60	0.520	7.18	8.56
70	0.438	5.10	7.07
80	0.375	3.74	5.72
90	0.323	2.77	4.43
100	0.276	2.02	3.06
110	0.237	1.49	1.74
120	0.205	1.12	0.48
130	0.172	0.79	-1.05
140	0.130	0.45	-3.48
150	0.099	0.26	-5.84
160	0.103	0.28	-5.50
170	0.099	0.26	-5.84
180	0.103	0.28	-5.50
190	0.133	0.47	-3.28
200	0.103	0.28	-5.50
210	0.099	0.26	-5.84
220	0.130	0.45	-3.48
230	0.130	0.45	-3.48
240	0.205	1.12	0.48
250	0.237	1.49	1.74
260	0.276	2.02	3.06
270	0.323	2.77	4.43
280	0.375	3.74	5.72
290	0.438	5.10	7.07
300	0.520	7.18	8.56
310	0.617	10.11	10.05
320	0.721	13.81	11.40
330	0.822	17.95	12.54
340	0.912	22.10	13.44
350	0.976	25.31	14.03

Vertical Polarization

Angle	Relative Field	Power Gain	Gain (dB)
0	0.547	7.94	9.00
10	0.534	7.56	8.79
20	0.499	6.61	8.20
30	0.449	5.37	7.30
40	0.394	4.13	6.16
50	0.337	3.02	4.80
60	0.284	2.15	3.32
70	0.239	1.52	1.83
80	0.205	1.12	0.48
90	0.177	0.83	-0.82
100	0.151	0.60	-2.18
110	0.130	0.45	-3.51
120	0.112	0.33	-4.77
130	0.094	0.23	-6.29
140	0.071	0.13	-8.72
150	0.054	0.08	-11.09
160	0.056	0.08	-10.74
170	0.054	0.08	-11.09
180	0.056	0.08	-10.74
190	0.073	0.14	-8.52
200	0.056	0.08	-10.74
210	0.054	0.08	-11.09
220	0.071	0.13	-8.72
230	0.071	0.13	-8.72
240	0.112	0.33	-4.77
250	0.130	0.45	-3.51
260	0.151	0.60	-2.18
270	0.177	0.83	-0.82
280	0.205	1.12	0.48
290	0.239	1.52	1.83
300	0.284	2.15	3.32
310	0.337	3.02	4.80
320	0.394	4.13	6.16
330	0.449	5.37	7.30
340	0.499	6.61	8.20
350	0.534	7.56	8.79

OCTOBER 2017

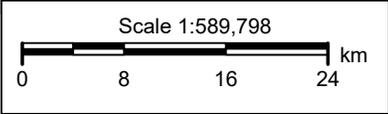
WSKC-CD
Latitude: 33-58-38 N
Longitude: 084-09-23 W
ERP: 15.00 kW
Channel: 14
Frequency: 473.0 MHz
HAAT: 135.0 m
AMSL Height: 404.7 m
Elevation: 309.577 m
Horiz. Pattern: Directional
Prop Model: None

WSKC-CD 51 dBu

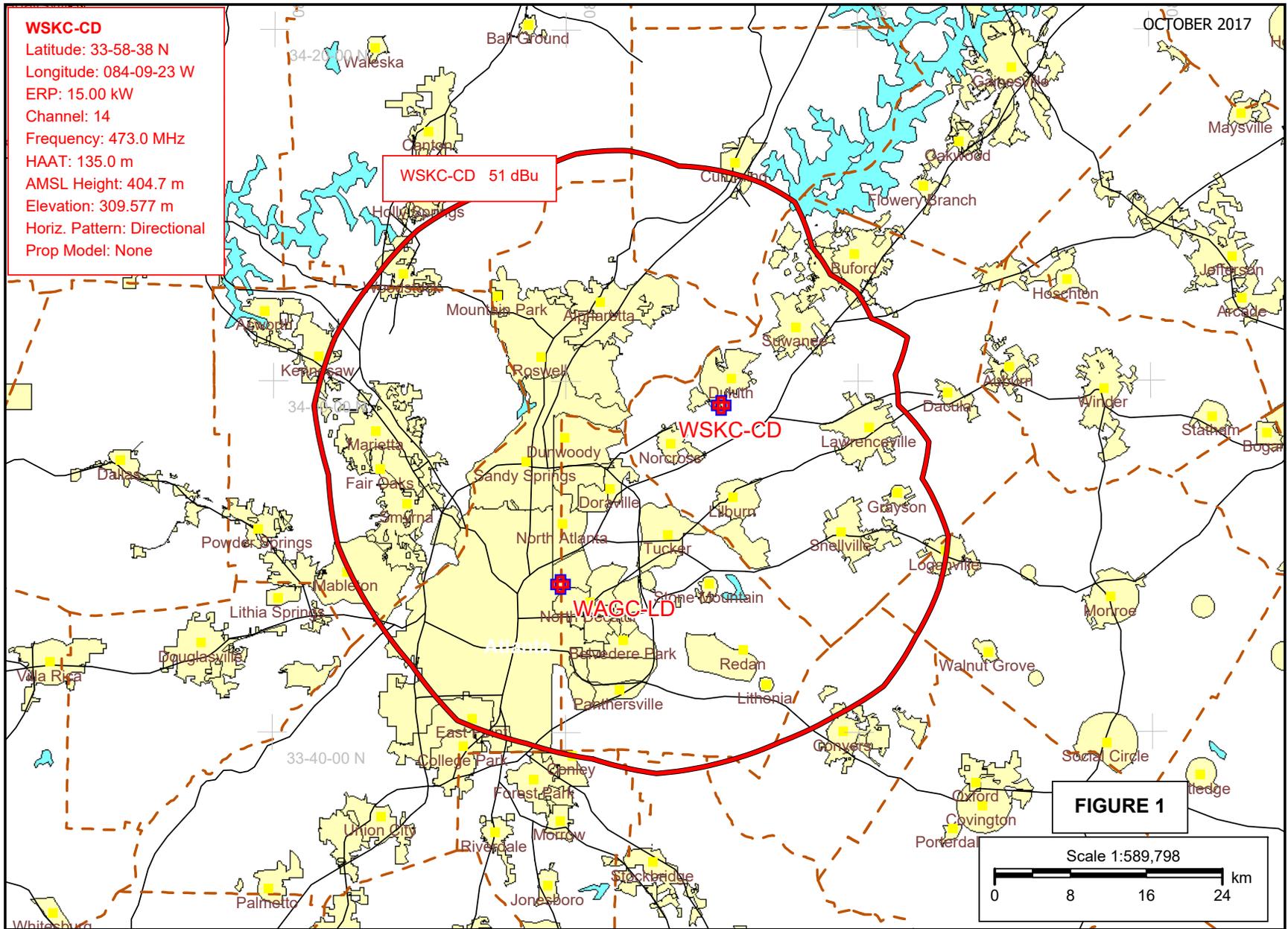
WSKC-CD

WAGC-LD

FIGURE 1

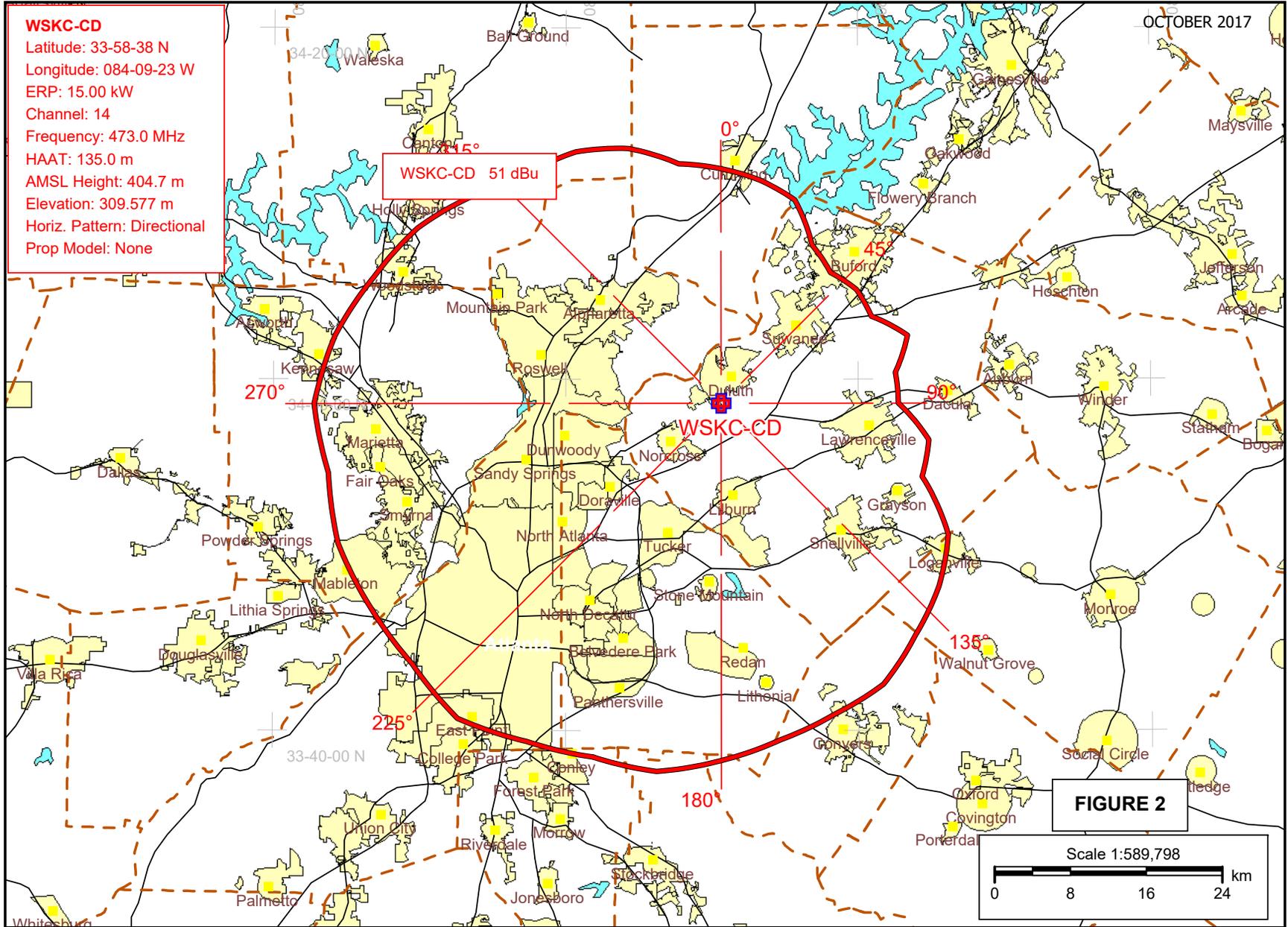


COMPUTED FCC 51 dBu CONTOUR FOR WSKC-CD ON CHANNEL 14 IN RELATION TO WAGC-LP



OCTOBER 2017

WSKC-CD
Latitude: 33-58-38 N
Longitude: 084-09-23 W
ERP: 15.00 kW
Channel: 14
Frequency: 473.0 MHz
HAAT: 135.0 m
AMSL Height: 404.7 m
Elevation: 309.577 m
Horiz. Pattern: Directional
Prop Model: None



COMPUTED FCC 51 dBu CONTOUR FOR WSKC-CD ON CHANNEL 14