

TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
NEW FM STATION  
NEW AUGUSTA, MISSISSIPPI  
CH 269A (101.7 MHz) 6.0 KW (ND) 100 M

Technical Narrative

1. Purpose of Application: The technical exhibit of which this narrative is part was prepared in support of the long form application of Blakeney Communications, Inc. to implement its winning bid for channel 269A (101.7 MHz) at New Augusta, Mississippi. Specifically, it is proposed to operate on channel 269A at New Augusta, Mississippi with a nondirectional (ND) antenna maximum ERP of 6.0 kW (H&V) and an HAAT of 100 meters.

2. Compliance with Section 73.315: Figure 1 is a map which demonstrates that the proposed operation complies with the provisions of Section 73.315 and FCC policies as 100% of the total area within New Augusta receives a 70 dBu, F(50,50) signal. The New Augusta city limits shown on Figure 1 were obtained from a map contained in the 2010 U.S. Census of Population.

3. Compliance with Section 73.207: Figure 2A is a separation study based on Section 73.207 for Channel 269A operation from the proposed transmitter site. As shown, the proposed site complies with the minimum distance separation requirements of Section 73.207 for class A operation on channel 247 towards all existing, authorized and proposed stations and allotments, with the exceptions of WTKX-FM on channel 268C (101.5 MHz) at Pensacola, Florida and WYOY on channel 269C2 (101.7 MHz) at Gluckstadt, Mississippi.

With respect to the short-spacing with WTKX-FM, as noted on Figure 2A, the proposed site is considered to be fully-spaced to WTKX-FM under Section 73.207. Specifically, WTKX-FM short-spaced the vacant channel 269A allotment at New Augusta, Mississippi pursuant to Section 73.215. As such, the actual distance between the WTKX-FM site and the vacant channel 269A allotment site at New Augusta becomes the minimum required distance under 73.207. As indicated on the attached Figure 2B, which is a Section 73.207 allotment study from the vacant channel 269A allotment site at New Augusta, the actual distance between sites is 159.36 km. Therefore, as the actual distance between the herein proposed site and WTKX-FM is 164.29 km, which exceeds the 159.36 km separation, the proposed site is considered to be fully-spaced to WTKX-FM under Section 73.207.

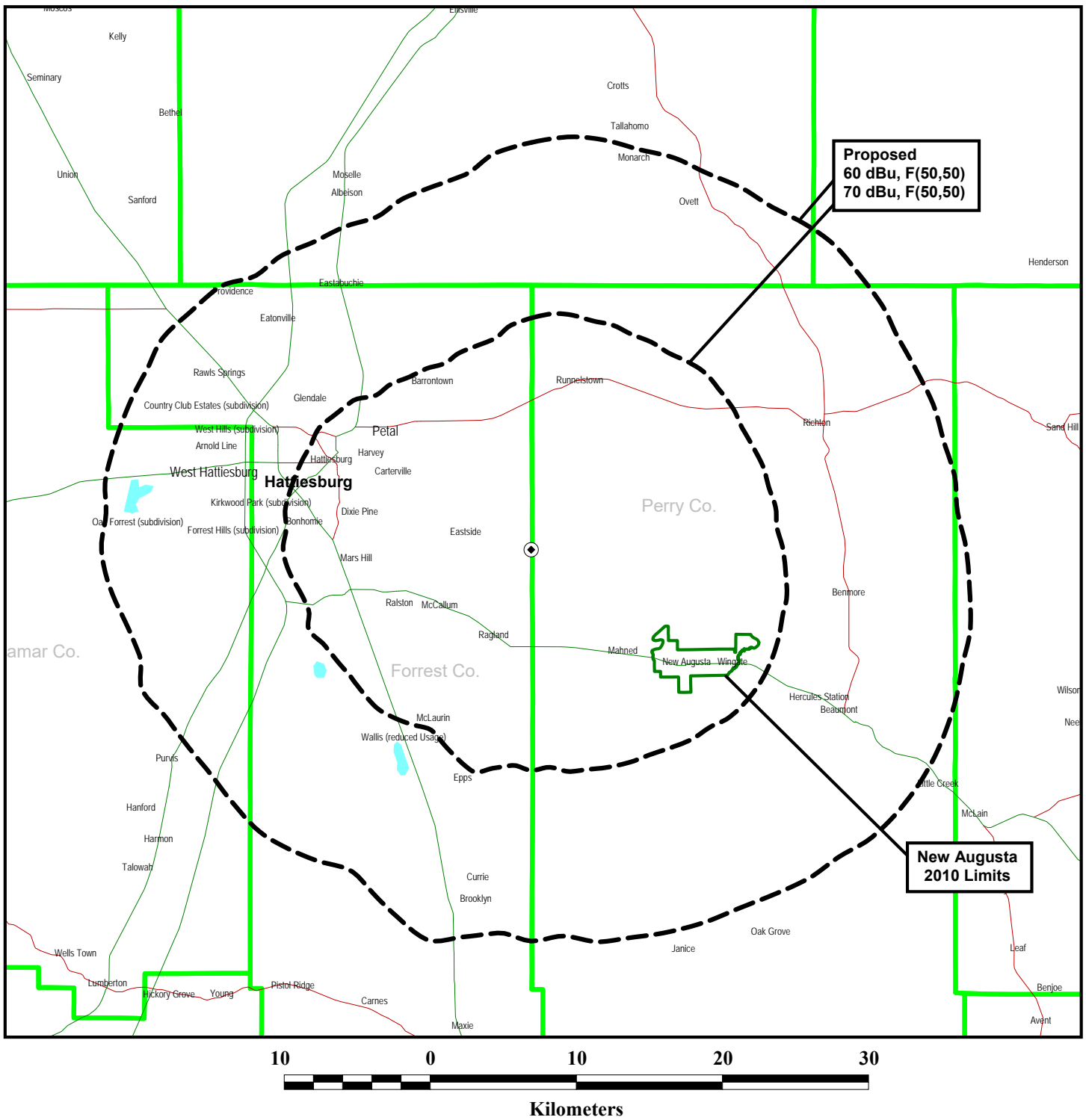
With respect to the short-spacing with WYOY, Section 73.215 processing is requested. Figure 3 is a map demonstrating compliance with the contour overlap provisions of Section 73.215. It is noted that since WYOY's licensed facilities were authorized under Section 73.215, actual facilities were utilized for the Section 73.215 analysis. Finally, the minimum

distance separation requirements of Section 73.215(e) are met with respect to the WYOY operation.

4. RFR Compliance: The proposed facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public based on the FCC's FM Model software. It is proposed to mount an ERI model LPX-4E, 4-bay, 1-wavelength spaced antenna at the 109 meter level on a proposed 119 meter tower. The total ERP is 12 kW (H+V). Figure 4 depicts the output of the FCC's FM Model program. As indicated, a maximum power density of 3 uW/cm<sup>2</sup> will occur at a point located 44 meters from the tower. This is only 1.5% of the FCC's recommended limit of 200 uW/cm<sup>2</sup> for FM frequencies for an uncontrolled environment. Thus, the proposed facility is in full compliance with the FCC's requirements with regard to radio frequency radiation exposure.

Access to the transmitting site will be restricted and appropriately marked with RFR warning signs. Furthermore, a protocol will be in effect in the event that workers or other authorized personnel enter the restricted area or climb the tower to ensure that appropriate measures will be taken to assure 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.

Figure 1



## COMPLIANCE WITH SECTION 73.315

NEW FM STATION  
NEW AUGUSTA, MISSISSIPPI  
CH 269A (101.7 MHZ) 6 KW 100 M  
du Treil, Lundin & Rackley, Inc. Sarasota, Florida

# FM Study LMS

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



**Station Channel:** 269      **Station Coordinates:** 031-16-16.1 089-08-47.8 (NAD 27)  
**Class:** A      **Buffer Distance:** 15 km  
**Comment:** Proposed Site

Callsign	Status	Channel	Service	Freq.	City		State	Co.	Rec Type	Latitude	Dist. (km)	Sep. (km)	Spacing (km)	
Facility ID	ARN			Class	DA	Ant ID	ERP (kW)	HAAT (m)	73.215	Longitude	Bear. (deg)	73.215 (km)	Comment	
WTKX-FM	L2C	268	FM	101.5	PENSACOLA			FL	US	C	030-36-40.7	164.29	165	-0.71
61243	BLH-20071106ACP			C	NDIR		100	488		Y	087-36-26.3	116.16	142	SHORT /1
	ALLOT	269	FA	101.7	NEW AUGUSTA			MS	US	C	031-13-41.6	5.73	115	-109.27
94840				A							089-06-47.2	146.27	92	SHORT /2
WYOY	L2C	269	FM	101.7	GLUCKSTADT			MS	US	C	032-23-12.5	156.73	166	-9.27
48647	BLH-20150408AAE			C2	DRL	110405	50	123.3		Y	090-09-47.3	322.52	143	SHORT /3

/1 The proposed site is considered to be fully-spaced to WTKX-FM under Section 73.207. Specifically, WTKX-FM short-spaced the vacant channel 269A allotment at New Augusta, MS pursuant to Section 73.215. As such, the actual distance between the WTKX-FM site and the vacant channel 269A allotment site at New Augusta becomes the minimum required distance under Section 73.207. As indicated by the attached Figure 2B, which is a Section 73.207 study from the vacant channel 269A allotment site at New Augusta, the actual distance between sites is 159.36 km. Therefore, as the actual distance between the herein proposed site and the WTKX-FM site is 164.29 km, which exceeds the 159.34 km separation, the proposed site is considered to be fully-spaced under Section 73.207.

/2 Allotment site.

/3 Section 73.215 processing requested towards WYOY. See Technical Narrative and Figure 3.

# FM Study LMS

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



**Station Channel:** 269      **Station Coordinates:** 031-13-41.6 089-06-47.2 (NAD 27)  
**Class:** A      **Buffer Distance:** 15 km  
**Comment:** Ch 269A Allotment Reference Site

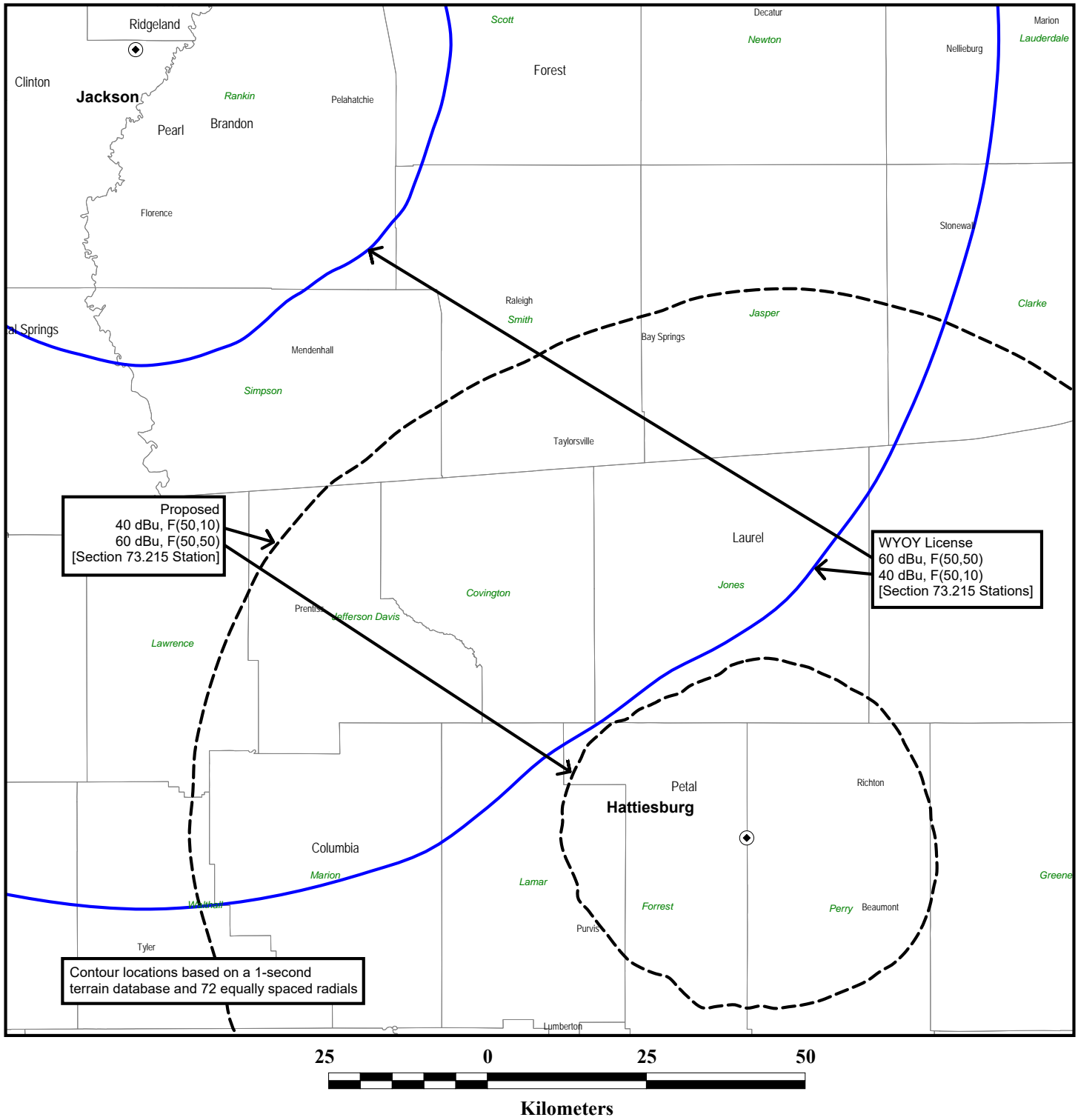
Callsign	Status	Channel	Service	Freq.	City		State	Co.	Rec Type	Latitude	Dist. (km)	Sep. (km)	Spacing (km)	
Facility ID	ARN			Class	DA	Ant ID	ERP (kW)	HAAT (m)	73.215	Longitude	Bear. (deg)	73.215 (km)	Comment	
WTKX-FM	L2C	268	FM	101.5	PENSACOLA			FL	US	C	030-36-40.7	159.36	165	-5.64
61243	BLH-20071106ACP			C	NDIR		100	488		Y	087-36-26.3	115.14	142	SHORT <a href="#">/1</a>
	ALLOT	269	FA	101.7	NEW AUGUSTA			MS	US	C	031-13-41.6	0	115	-115
94840				A							089-06-47.2	0	92	SHORT <a href="#">/2</a>
WYOY	L2C	269	FM	101.7	GLUCKSTADT			MS	US	C	032-23-12.5	162.45	166	-3.55
48647	BLH-20150408AAE			C2	DRL	110405	50	123.3		Y	090-09-47.3	322.67	143	SHORT <a href="#">/3</a>

/1 WTKX-FM short-spaced the vacant channel 269A allotment reference site pursuant to Section 73.215. Therefore, the actual distance between sites, 159.36 km, becomes the minimum required separation under Section 73.207.

/2 Allotment reference site.

/3 WYOY short-spaced the vacant channel 269A allotment reference site pursuant to Section 73.215. Therefore, the actual distance between sites, 162.45 km, becomes the minimum required separation under Section 73.207.

Figure 3



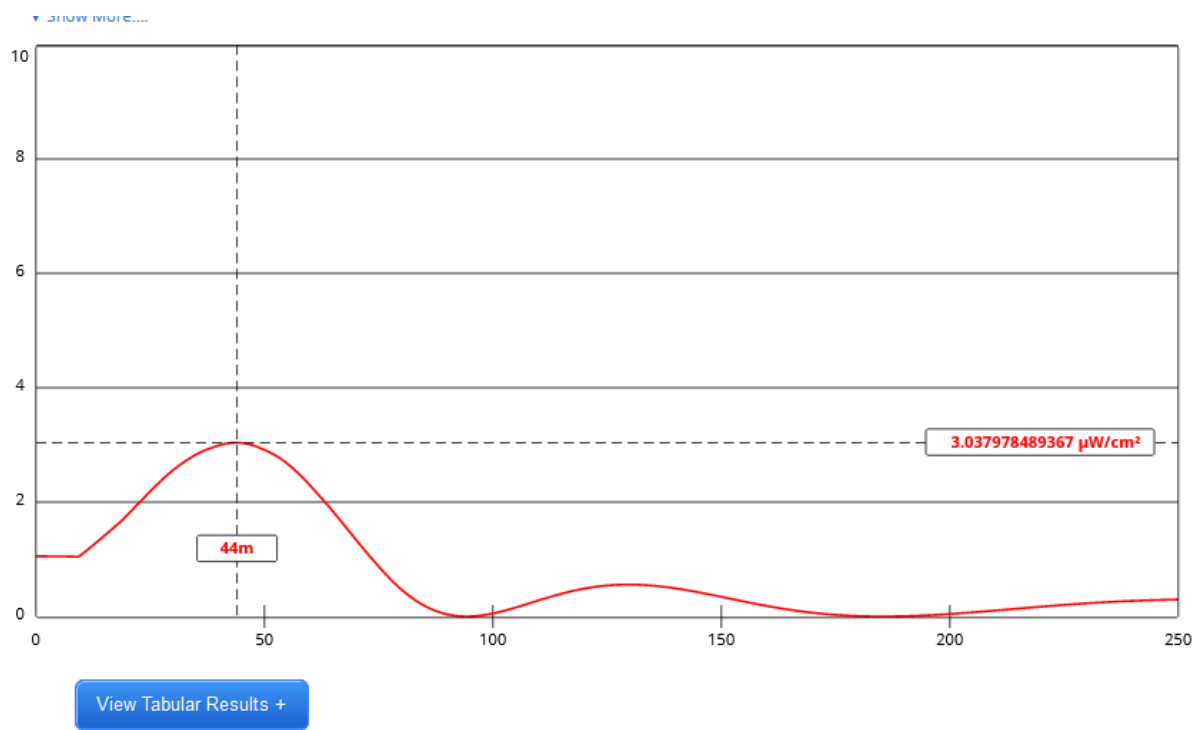
**SECTION 73.215 COMPLIANCE**

NEW FM STATION  
NEW AUGUSTA, MISSISSIPPI  
CH 269A (101.7 MHZ) 6 KW 100 M

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

Figure 4

Output of FCC's FM Model Program:



Channel Selection	Channel 269 (101.7 MHz) ▼		
Antenna Type +	EPA Type 3: Opposed U Dipole ▼		
Height (m)	109	Distance (m)	250
ERP-H (W)	6000	ERP-V (W)	6000
Num of Elements	4	Element Spacing (λ)	1
Num of Points	500	Apply	