

FIGURE 4 (Sheet 1 of 2)

PROPOSED NIGHTTIME ANTENNA INFORMATION

FREQUENCY 620 KHZ

POWER 0.250 KW

TABULATION OF ANTENNA PARAMETERS

TOWER NUMBER	HEIGHT DEGREES	FIELD RATIO	SPACING DEGREES	ORIENTATION DEGREES	PHASING DEGREES
1	90.0	1.00	0.0	0.0	0.0
2	90.0	0.560	99.2	47.8	-148.8
3	115.0	0.720	112.1	11.5	36.8
4	90.0	1.01	65.0	328.3	177.6

TOWER NUMBER	HEIGHT FEET	SPACING FEET	LOSS RESISTANCE	TYPE OF TOWER	SIDE OF TOWER	PARASITIC REACTANCE
1	396.60	0.00	1.00	UNI-APEX	18.0	15.58
2	396.60	437.14	1.00	UNI-APEX	18.0	15.58
3	506.77	493.99	1.00	UNI-APEX	18.0	15.58
4	396.60	286.43	1.00	UNI-APEX	18.0	15.58

TOWER NUMBER	N-DA 1 KILOWATT	FIELDS AT ONE KM 250.000 WATTS	SERIES FED RESISTANCE	SELF IMPEDANCE REACTANCE
1	313.6	156.8	50.4	76.3
2	313.6	156.8	50.4	76.3
3	324.0	162.0	179.1	255.2
4	313.6	156.8	50.4	76.3

UNIPOLE DATA - - TOWER NO. 1

FREQUENCY: 620. KHZ  
HEIGHT: 396.6 FEET  
SIDE OF TOWER: 18.0 INCHES  
BASE INDUCTANCE: 4.0 MICRO-HENRIES  
SEPERATION OF FOLD FROM TOWER: 24.0 INCHES  
DIAMETER OF FOLD WIRE: 0.184 INCHES  
  
BASE RESISTANCE (R): 50.0 OHMS  
BASE REACTANCE (jX): 178.0 OHMS

UNIPOLE DATA - - TOWER NO. 2

FREQUENCY: 620. KHZ  
HEIGHT: 396.6 FEET  
SIDE OF TOWER: 18.0 INCHES  
BASE INDUCTANCE: 4.0 MICRO-HENRIES  
SEPERATION OF FOLD FROM TOWER: 24.0 INCHES  
DIAMETER OF FOLD WIRE: 0.184 INCHES  
  
BASE RESISTANCE (R): -25.0 OHMS  
BASE REACTANCE (jX): 206.0 OHMS

FIGURE 4 (Sheet 2 of 2)

PROPOSED NIGHTTIME ANTENNA INFORMATION

UNIPOLE DATA - - TOWER NO. 3

FREQUENCY: 620. KHZ  
HEIGHT: 506.8 FEET  
SIDE OF TOWER: 18.0 INCHES  
BASE INDUCTANCE: 4.0 MICRO-HENRIES  
SEPERATION OF FOLD FROM TOWER: 24.0 INCHES  
DIAMETER OF FOLD WIRE: 0.184 INCHES  
  
BASE RESISTANCE (R): -49.0 OHMS  
BASE REACTANCE (jX): 2812.0 OHMS

UNIPOLE DATA - - TOWER NO. 4

FREQUENCY: 620. KHZ  
HEIGHT: 396.6 FEET  
SIDE OF TOWER: 18.0 INCHES  
BASE INDUCTANCE: 4.0 MICRO-HENRIES  
SEPERATION OF FOLD FROM TOWER: 24.0 INCHES  
DIAMETER OF FOLD WIRE: 0.184 INCHES  
  
BASE RESISTANCE (R): 25.0 OHMS  
BASE REACTANCE (jX): 142.0 OHMS

INPUT IMPEDANCE AND POWER DISTRIBUTION  
(THEORETICAL BASE IMPEDANCES)

TOWER	RESISTANCE	REACTANCE	AMPS	PHASE	KVOLTS	KWATTS
1	50.0	178.	1.978	0.0	0.366	0.196
2	-25.0	206.	0.911	-148.8	0.189	-0.021
3	-49.0	2812.	0.406	45.0	1.142	-0.008
4	25.0	142.	1.824	177.6	0.263	0.083

THEORETICAL STANDARD  
(AT ONE KM)

RSS	416.2	
RMS	159.7	167.6
RSS/RMS RATIO	2.61	
K	246.4	
Q-FACTOR		10.4
LOSS RESISTANCE		1.0 OHMS