

**Ave El= 98.32 M   HAAT= 29.68 M   AMSL= 128 M**

**KW DO analysis:**

The proposed facility will be located inside the protected contour of 2nd adjacent channel stations KWDO on channel 257BI. Therefore, an interference analysis has been conducted based on the U/D ratio of +40 dB at the proposed site. The KWDO contour at the proposed site is 86.9 dBu and the (50,10) interference contour is 126.9 dBu. Exhibit E1B demonstrates that this interfering contour is at least 11.2 meters above ground while the building on which the tower is mounted is 6 meters (see E1C).


Clearly, this interference contour will not reach any populated area or major highways. Based on this showing a waiver of Section 74.1204 is requested in accordance with *Living Way Ministries, Inc.* (FCC 08-242).

**RF Exposure Calculation:**

The proposed facility will use using a single bay Nicom BKG1/P antenna mounted at a 45 degree slant at 32 meters AGL and 24 meters above the building on which the tower is mounted. The RF contribution of the proposed translator was calculated to be 24.8  $\mu\text{Watts}/\text{cm}^2$  using the formula included below and a worst case vertical factor of 1.0. This is 12.4% of the maximum permissible 200  $\mu\text{Watts}/\text{cm}^2$  exposure for general population/uncontrolled exposure.

$$S \text{ (RF in } \mu\text{Watts}/\text{cm}^2) = \frac{33.4 (F^2 \text{ Vertical Factor}) X (H \text{ ERP} + V \text{ ERP in Watts})}{R^2 \text{ (distance to radiation center in meters} - 2 \text{ m)}}$$

The proposed translator facility complies with Commission RF radiation limits.

  
Charles M. Anderson 1/16/2018

# E1 CHANNEL STUDY

REFERENCE		CH# 259D - 99.7 MHz, Pwr= 0.18 kW DA, HAAT= 29.7 M, COR= 128 M							DISPLAY DATES	
36 47 56.0 N.		Average Protected F(50-50)= 6.53 km							DATA 01-15-18	
119 47 24.0 W.		Standard Directional							SEARCH 01-15-18	
CH CITY	CALL	TYPE ANT STATE	AZI <--	DI ST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*IN* (Overlap in km)	*OUT*
259B	KI00	LIC _CX	138.3	102.67	36 06 26.0	25.000	136.7	70.1	-40.6*	0.7
Porterville		CA	318.7	BLH20130826AFC	119 01 45.0	214	385	Momentum Broadcasting Lp		
257B1	KWDO	LIC NCX	177.0	7.08	36 44 07.0	14.500	3.3	37.9	-2.7	-31.9*
Fresno		CA	357.0	BLH20040112ACI	119 47 09.0	105	185	John Edward Ostlund		

See E1B and E1C for disproval of interference to KWDO per *Living Way*.

259D South Fresno	K259CF	LIC _V_ CA	188.4 8.3	5.41 BLFT20170731AHF	36 45 02.4 119 47 55.8	0.125	19.8 110	6.0 Gary M. Cocola	-20.5*	-21.1*
260B Mount Bullion	KCI V	LIC _CX CA	345.8 165.6	84.26 BLH20030228ABH	37 32 00.0 120 01 29.0	1.900 638	84.1 1337	70.5 Bott Communications, Inc.	-5.2	2.6
262D Muscatel	1564460	APP _C_ CA	253.8 73.8	5.76 BNPFT20030317HHA	36 47 04.0 119 51 08.0	0.055 51	0.5 129	4.8 Juan Alberto Ayala	0.2	0.6
261D West Fresno	1551165	APP _C_ CA	289.9 109.8	12.09 BNPFT20030313ATO	36 50 09.0 119 55 04.0	0.250 44	1.1 122	7.1 Big Broadcasting, Inc.	6.3	4.6
262A Orange Cove	KMAK	LIC _CN CA	97.3 277.6	45.55 BLH19900911KB	36 44 45.0 119 16 58.0	0.072 632	0.6 1036	28.3 Kmak-fm, Lic	38.4	16.3
261B Coal inga	KNGS	CP _CN CA	196.3 16.1	91.19 BMPH19940217IB	36 00 40.0 120 04 26.0	19.000 242	6.5 457	72.7 William L. Zawila	78.6	17.3
261D Cl ovi s	K261EH	LIC _C_ CA	82.5 262.7	27.59 BLFT20170110AAG	36 49 51.0 119 28 57.0	0.002	0.1 178	2.8 Richard B. Smith	21.0	23.8

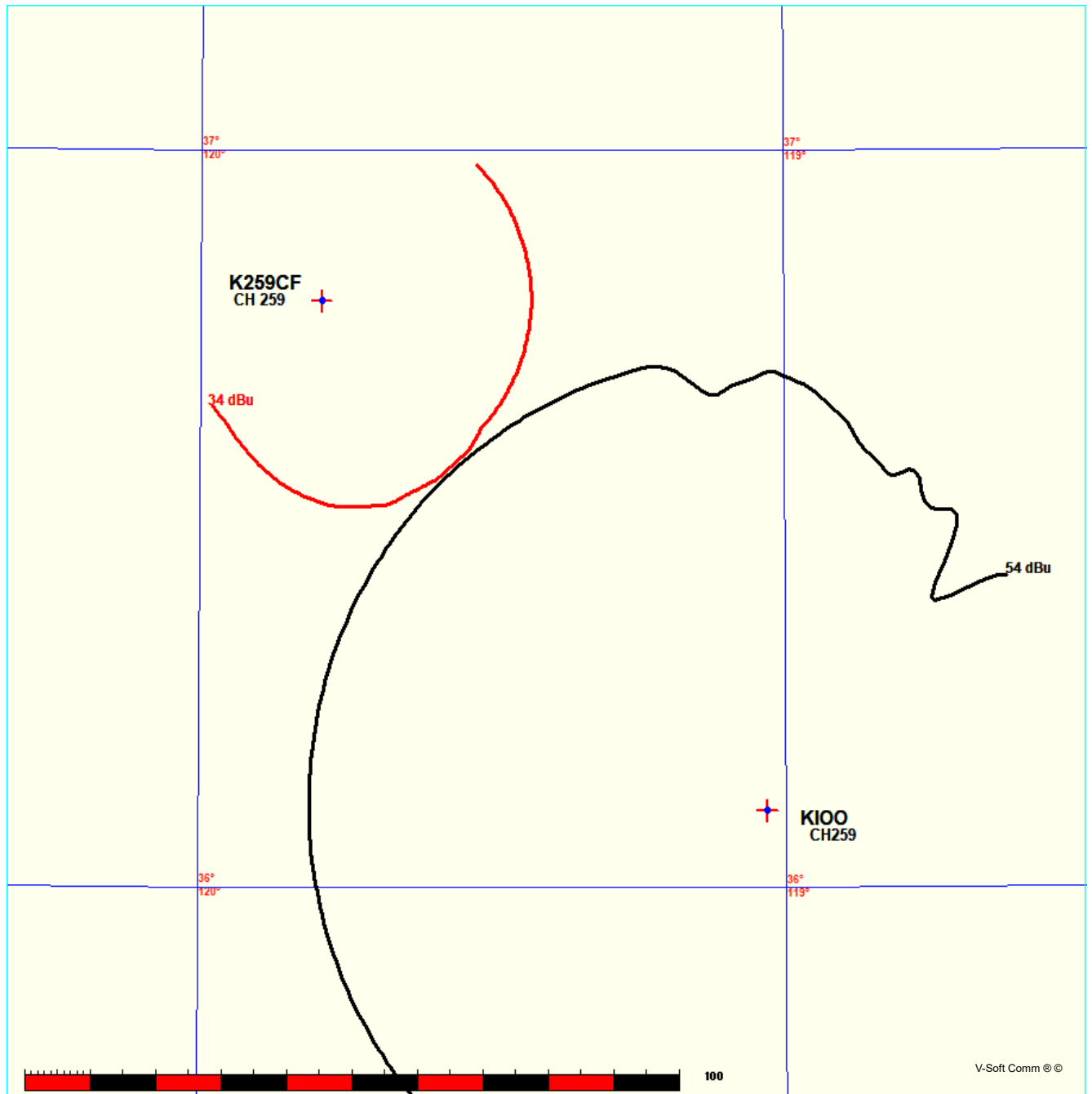
Terrain database is GLOBE 30 Sec , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM  
In & Out distances between contours are shown at closest points. Reference zone= East Zone 2A, Co to 3rd adjacent.  
All separation margins (if shown) include rounding.  
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, \_= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)  
"\*"affixed to 'IN' or 'OUT' values = site inside restricted contour.

# E1A1 KIOO INTERFERENCE PLOT

FMCommander Single Allocation Study - 01-16-2018 - GLOBE 30 Sec  
K259CF's Overlaps (In= -40.62 km, Out= 0.71 km)

K259CF CH 259 D DA  
Lat= 36 47 56.0, Lng= 119 47 24.0  
0.18 kW 29.7 m HAAT, 128 m COR  
Prot.= 60 dBu, Intef.= 34 dBu

KIOO CH 259 B BLH20130826AFC  
Lat= 36 06 26.0, Lng= 119 01 45.0  
25.0 kW 214 m HAAT, 385 m COR  
Prot.= 54 dBu, Intef.= 40 dBu



# E1A1 KIOO FMOVER

01-16-2018 Terrain Data: GLOBE 30 Sec FMOVER Analysis

KIOO BLH20130826AFC

K259CF

Channel = 259B  
Max ERP = 25 kW  
RCAMSL = 385 m  
N. Lat. 36 06 26.0  
W. Lng. 119 01 45.0  
Protected  
54 dBu

Channel = 259D  
Max ERP = 0.18 kW  
RCAMSL = 128 m  
N. Lat. 36 47 56.0  
W. Lng. 119 47 24.0  
Interfering  
34 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
305.0	025.0000	0276.0	070.4	164.2	000.1252	0038.2	038.2	31.80	
306.0	025.0000	0275.9	070.4	162.8	000.1275	0038.2	037.4	32.13	
307.0	025.0000	0275.7	070.4	161.2	000.1300	0037.8	036.7	32.39	
308.0	025.0000	0275.6	070.3	159.6	000.1325	0037.2	036.0	32.60	
309.0	025.0000	0275.4	070.3	157.9	000.1347	0036.6	035.4	32.78	
310.0	025.0000	0275.2	070.3	156.1	000.1371	0035.9	034.9	32.93	
311.0	025.0000	0275.0	070.3	154.2	000.1396	0035.5	034.3	33.11	
312.0	025.0000	0274.8	070.3	152.3	000.1423	0035.3	033.9	33.32	
313.0	025.0000	0274.6	070.3	150.3	000.1450	0034.8	033.5	33.46	
314.0	025.0000	0274.3	070.2	148.3	000.1477	0034.6	033.2	33.61	
315.0	025.0000	0274.0	070.2	146.2	000.1504	0034.3	032.9	33.72	
316.0	025.0000	0273.8	070.2	144.1	000.1532	0033.5	032.7	33.72	
317.0	025.0000	0273.5	070.2	142.0	000.1560	0032.9	032.6	33.70	
318.0	025.0000	0273.2	070.1	139.8	000.1588	0032.4	032.6	33.70	
319.0	025.0000	0272.9	070.1	137.7	000.1606	0032.2	032.6	33.69	
320.0	025.0000	0272.5	070.1	135.5	000.1624	0032.0	032.7	33.65	
321.0	025.0000	0272.2	070.1	133.4	000.1641	0031.3	032.8	33.51	
322.0	025.0000	0271.9	070.0	131.3	000.1658	0030.7	033.0	33.32	
323.0	025.0000	0271.6	070.0	129.2	000.1673	0029.8	033.3	33.11	
324.0	025.0000	0271.2	070.0	127.2	000.1684	0028.7	033.6	33.00	
325.0	025.0000	0270.8	069.9	125.3	000.1694	0027.5	034.0	32.88	
326.0	025.0000	0270.4	069.9	123.4	000.1704	0026.6	034.5	32.73	
327.0	025.0000	0270.1	069.9	121.6	000.1713	0026.0	035.0	32.57	
328.0	025.0000	0269.7	069.8	119.8	000.1722	0025.8	035.6	32.39	
329.0	025.0000	0269.3	069.8	118.1	000.1729	0025.7	036.2	32.18	
330.0	025.0000	0269.0	069.8	116.5	000.1735	0025.7	036.9	31.96	

# E1A2 KIOO INTERFERENCE PLOT

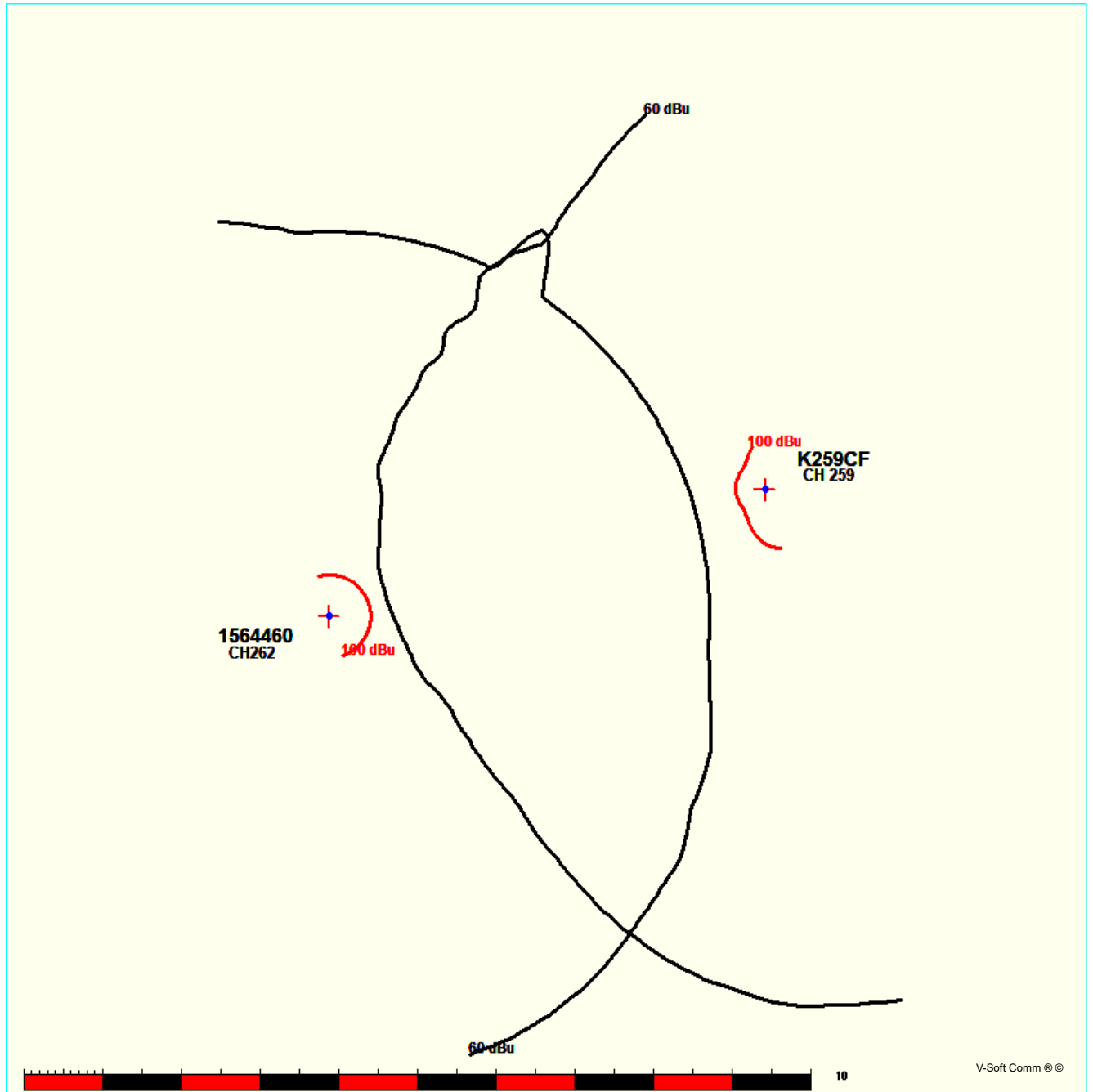
FMCommander Single Allocation Study - 01-16-2018 - GLOBE 30 Sec  
K259CF's Overlaps (In= 0.24 km, Out= 0.56 km)

K259CF CH 259 D DA

CH 262 D BNPFT20030317HHA

Lat= 36 47 56.0, Lng= 119 47 24.0  
0.18 kW 29.7 m HAAT, 128 m COR  
Prot.= 60 dBu, Intef.= 100 dBu

Lat= 36 47 04.0, Lng= 119 51 08.0  
0.055 kW 51.1 m HAAT, 129 m COR  
Prot.= 60 dBu, Intef.= 100 dBu



# E1A2 FMOVER ANALYSIS TO AND FROM BNPFT-20030317HHA

01-16-2018 Terrain Data: GLOBE 30 Sec FMOVER Analysis

K259CF

BNPFT20030317HHA

Channel = 259D  
Max ERP = 0.18 kW  
RCAMSL = 128 m  
N. Lat. 36 47 56.0  
W. Lng. 119 47 24.0  
Protected  
60 dBu

Channel = 262D  
Max ERP = 0.055 kW  
RCAMSL = 129 m  
N. Lat. 36 47 04.0  
W. Lng. 119 51 08.0  
Interfering  
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
247.0	000.0287	0043.6	005.0	109.4	000.0550	0033.8	001.0	94.15	
248.0	000.0287	0043.7	005.0	105.7	000.0550	0032.7	001.0	94.67	
249.0	000.0286	0043.8	005.0	101.4	000.0550	0031.3	000.9	95.16	
250.0	000.0285	0043.9	005.0	096.7	000.0550	0030.4	000.9	95.61	
251.0	000.0286	0044.1	005.0	091.5	000.0550	0029.3	000.8	96.08	
252.0	000.0287	0044.1	005.0	085.7	000.0550	0028.4	000.8	96.43	
253.0	000.0288	0044.1	005.0	079.4	000.0550	0027.0	000.8	96.65	
254.0	000.0289	0044.1	005.0	072.8	000.0550	0026.2	000.8	96.73	
255.0	000.0289	0044.1	005.0	066.2	000.0550	0024.5	000.8	96.66	
256.0	000.0290	0044.1	005.0	059.8	000.0550	0023.9	000.8	96.53	
257.0	000.0291	0044.1	005.0	053.6	000.0550	0022.7	000.8	96.26	
258.0	000.0292	0044.1	005.0	048.1	000.0550	0021.3	000.8	95.86	
259.0	000.0293	0044.0	005.0	043.4	000.0550	0020.8	000.9	95.33	
260.0	000.0294	0043.7	005.0	039.7	000.0550	0021.6	001.0	94.71	

BNFT20030317HHA

K259CF

Channel = 262D  
Max ERP = 0.055 kW  
RCAMSL = 129 m  
N. Lat. 36 47 04.0  
W. Lng. 119 51 08.0  
Protected  
60 dBu

Channel = 259D  
Max ERP = 0.18 kW  
RCAMSL = 128 m  
N. Lat. 36 47 56.0  
W. Lng. 119 47 24.0  
Interfering  
100 dBu

Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Azimuth (degrees)	ERP (kW)	HAAT (m)	Dist (km)	Actual (dBu)	IX (km)
072.0	000.0550	0026.0	004.8	263.1	000.0292	0042.7	001.0	92.00	
073.0	000.0550	0026.3	004.8	258.0	000.0292	0044.1	000.9	92.10	
074.0	000.0550	0026.5	004.8	252.9	000.0288	0044.1	000.9	92.06	
075.0	000.0550	0026.7	004.8	247.8	000.0287	0043.7	000.9	91.99	
076.0	000.0550	0026.8	004.8	242.8	000.0290	0043.3	001.0	91.91	
077.0	000.0550	0026.8	004.8	238.0	000.0291	0041.9	001.0	91.71	
078.0	000.0550	0026.9	004.8	233.5	000.0289	0042.2	001.0	91.40	
079.0	000.0550	0027.0	004.8	229.3	000.0289	0042.8	001.1	91.08	
080.0	000.0550	0027.1	004.8	225.5	000.0302	0042.6	001.1	90.92	

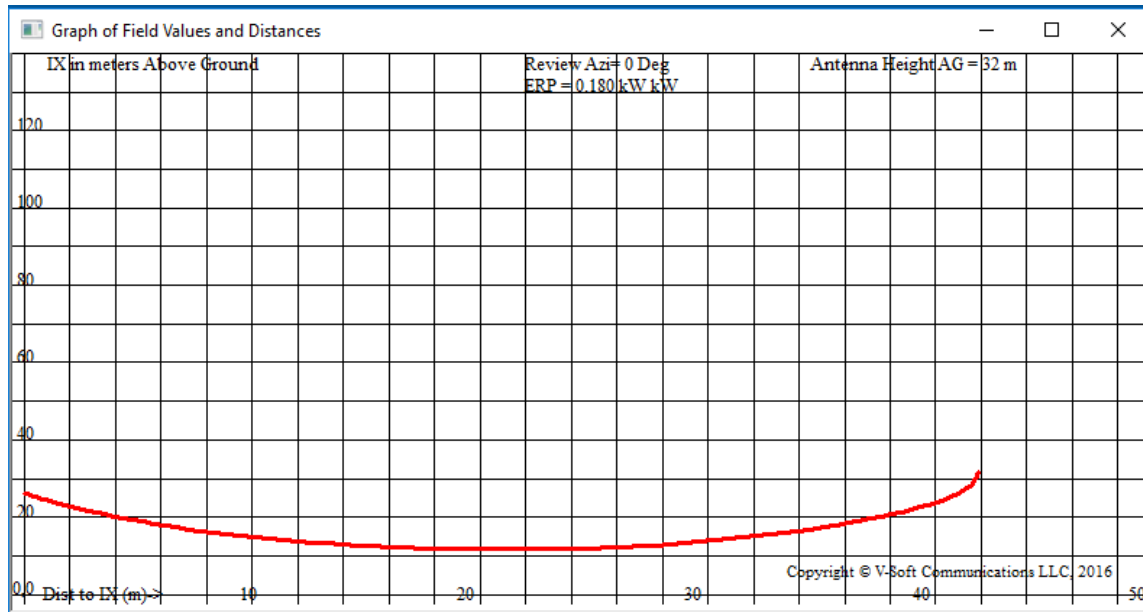
# E1B KWDO 257B1 INTERFERENCE ANALYSIS

K259CF FRESNO, CA, Showing Protection to KWDO  
 74.1204(d) Study - Using GLOBE 30 SEC Terrain Database  
 Translator or LPFM Maximum Licensed ERP = 0.18  
 Translator or LPFM Antenna Height AG = 32 Meters  
 K259CF Antenna Model = NICOM-BKG1-1

Protected Station's Contour = 86.86175 dBu  
 Translator's or LPFM's full Interference contour 126.86175

Review Azimuth = 0 Degrees True  
 Relative Field on the horizon at Review Azimuth = 1.000  
 Translator/LPFM ERP on the horizon at Review Azimuth = 0.18 kW  
 Distance between stations = 7.1 km  
 Protected Station= KWDO, 14.5 kW, 185 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.000	1.0	0.1800	042.7119	042.7119	032.000
05.00	0.998	1.0	0.1793	042.6265	042.4643	028.285
10.00	0.987	1.0	0.1754	042.1566	041.5162	024.680
15.00	0.963	1.0	0.1669	041.1315	039.7300	021.354
20.00	0.931	1.0	0.1560	039.7648	037.3667	018.400
25.00	0.895	1.0	0.1442	038.2271	034.6456	015.845
30.00	0.853	1.0	0.1310	036.4332	031.5521	013.783
35.00	0.808	1.0	0.1175	034.5112	028.2699	012.205
40.00	0.755	1.0	0.1026	032.2475	024.7030	011.272
45.00	0.689	1.0	0.0854	029.4285	020.8091	011.191
50.00	0.621	1.0	0.0694	026.5241	017.0494	011.681
55.00	0.554	1.0	0.0552	023.6624	013.5722	012.617
60.00	0.483	1.0	0.0420	020.6298	010.3149	014.134
65.00	0.406	1.0	0.0297	017.3410	007.3286	016.284
70.00	0.332	1.0	0.0198	014.1803	004.8500	018.675
75.00	0.265	1.0	0.0126	011.3186	002.9295	021.067
80.00	0.215	1.0	0.0083	009.1831	001.5946	022.956
85.00	0.179	1.0	0.0058	007.6454	000.6663	024.384
90.00	0.149	1.0	0.0040	006.3641	000.0000	025.636





## E1C AERIAL VIEW OF 126.9 DBU (50:10) INTERFERENCE CONTOUR



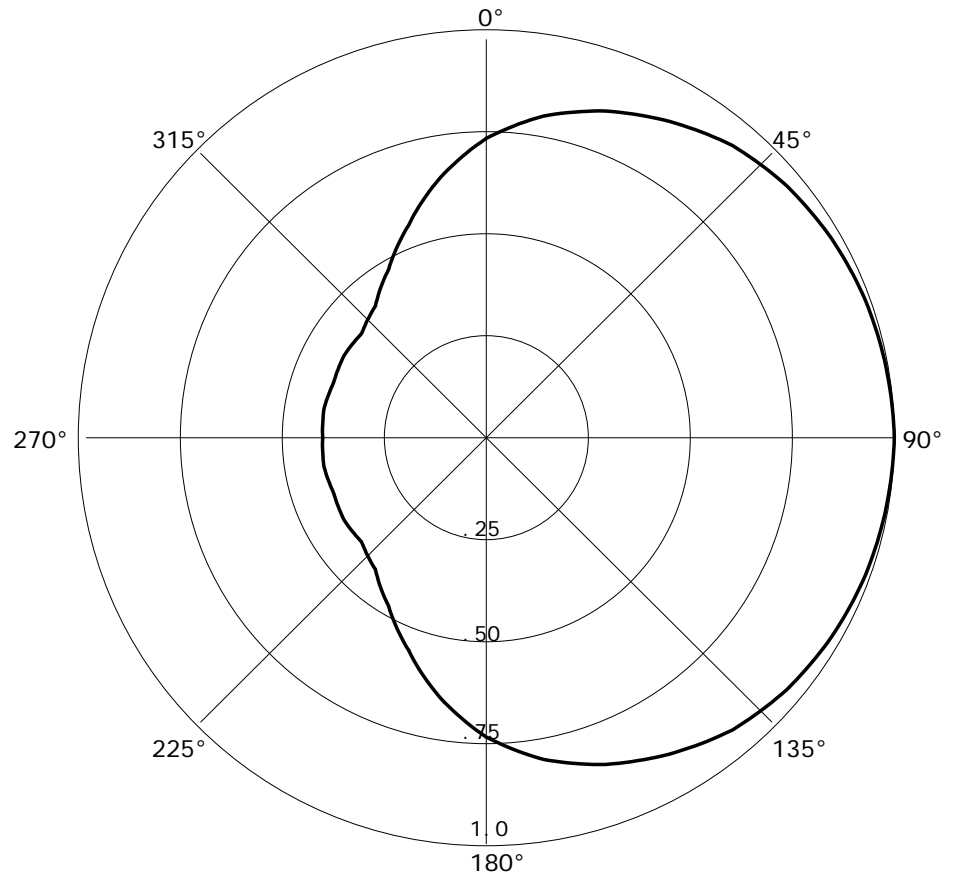
# E1D DA TABULATION

01-16-2018

RMS(V) = .739 Graph

i s Relative F i e l d

Azi	F i e l d	dBk	kW
000	0.737	-10.098	0.098
010	0.804	-09.342	0.116
020	0.856	-08.798	0.132
030	0.899	-08.372	0.145
040	0.939	-07.994	0.159
050	0.963	-07.775	0.167
060	0.978	-07.640	0.172
070	0.989	-07.543	0.176
080	0.995	-07.491	0.178
090	1.000	-07.447	0.180
100	0.995	-07.491	0.178
110	0.989	-07.543	0.176
120	0.978	-07.640	0.172
130	0.963	-07.775	0.167
140	0.939	-07.994	0.159
150	0.899	-08.372	0.145
160	0.856	-08.798	0.132
170	0.804	-09.342	0.116
180	0.737	-10.098	0.098
190	0.650	-11.189	0.076
200	0.557	-12.530	0.056
210	0.479	-13.841	0.041
220	0.423	-14.920	0.032
230	0.399	-15.428	0.029
240	0.403	-15.341	0.029
250	0.398	-15.450	0.029
260	0.404	-15.320	0.029
270	0.401	-15.384	0.029
280	0.404	-15.320	0.029
290	0.398	-15.450	0.029
300	0.403	-15.341	0.029
310	0.399	-15.428	0.029
320	0.423	-14.920	0.032
330	0.479	-13.841	0.041
340	0.557	-12.530	0.056
350	0.650	-11.189	0.076



Nicom detailed specifications appended to report.

**K259CF**

**Latitude: 36-47-56 N**

**Longitude: 119-47-24 W**

**ERP: 0.18 kW**

**Channel: 259**

**Frequency: 99.7 MHz**

**AMSL Height: 128.0 m**

**Elevation: 96.0 m**

**Horiz. Pattern: Directional**

**E2 CONTOURS**

**K259CF PROPOSED 60 DBU**

**K259CF**

**K259CF**

**Fresno**

**KYAF 60 DBU**

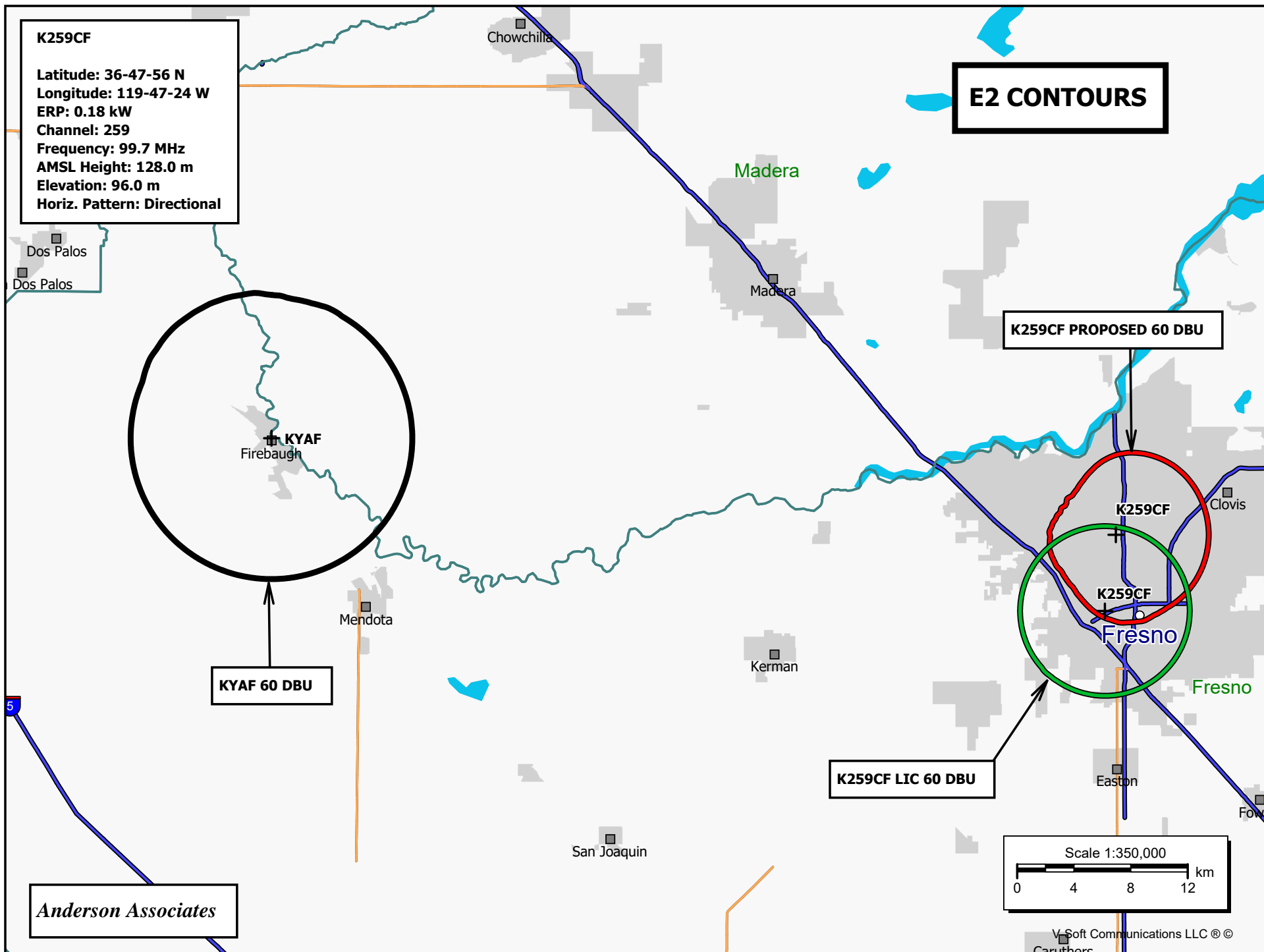
**K259CF LIC 60 DBU**

*Anderson Associates*

Scale 1:350,000

0 4 8 12 km

V-Soft Communications LLC ©  
Caruthers



# TOWAIR Determination Results

A routine check of the coordinates, heights, and structure type you provided indicates that this structure does not require registration.

## \*\*\* NOTICE \*\*\*

TOWAIR's findings are not definitive or binding, and we cannot guarantee that the data in TOWAIR are fully current and accurate. In some instances, TOWAIR may yield results that differ from application of the criteria set out in 47 C.F.R. Section 17.7 and 14 C.F.R. Section 77.13. A positive finding by TOWAIR recommending notification should be given considerable weight. On the other hand, a finding by TOWAIR recommending either for or against notification is not conclusive. It is the responsibility of each ASR participant to exercise due diligence to determine if it must coordinate its structure with the FAA. TOWAIR is only one tool designed to assist ASR participants in exercising this due diligence, and further investigation may be necessary to determine if FAA coordination is appropriate.

### DETERMINATION Results

**PASS SLOPE(100:1): NO FAA REQ-RWY MORE THAN 10499 MTRS & 7730.64 MTRS (7.73059 KM) AWAY**

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	36-44-6.00N	119-49-31.00W	FRESNO CHANDLER EXECUTIVE	FRESNO, CA	84.8	1105.5

**PASS SLOPE(100:1)NO FAA REQ - 5693.0 Meters (18677.5 Feet)away & below slope by 27.0 Meters (88.5799 Feet)**

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	36-47-2.00N	119-43-48.00W	FRESNO YOSEMITE INTL	FRESNO, CA	100.6	2907.5

**PASS SLOPE(100:1)NO FAA REQ - 5509.0 Meters (18073.9 Feet)away & below slope by 25.0 Meters (82.0199 Feet)**

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	36-46-59.00N	119-43-57.00W	FRESNO YOSEMITE INTL	FRESNO, CA	100.6	2907.5

**PASS SLOPE(50:1): NO FAA REQ-RWY 10499 MTRS OR LESS & 7987.89 MTRS  
(7.98789 ) KM AWAY**

Type	C/R	Latitude	Longitude	Name	Address	Lowest Elevation (m)	Runway Length (m)
AIRP	R	36-50- 16.00N	119-51- 59.00W	SIERRA SKY PARK	FRESNO FRESNO, CA	96.6	753.79999999999995

### Your Specifications

#### NAD83 Coordinates

Latitude 36-47-56.3 north

Longitude 119-47-27.5 west

#### Measurements (Meters)

Overall Structure Height (AGL) 34

Support Structure Height (AGL) 0

Site Elevation (AMSL) 96

#### Structure Type

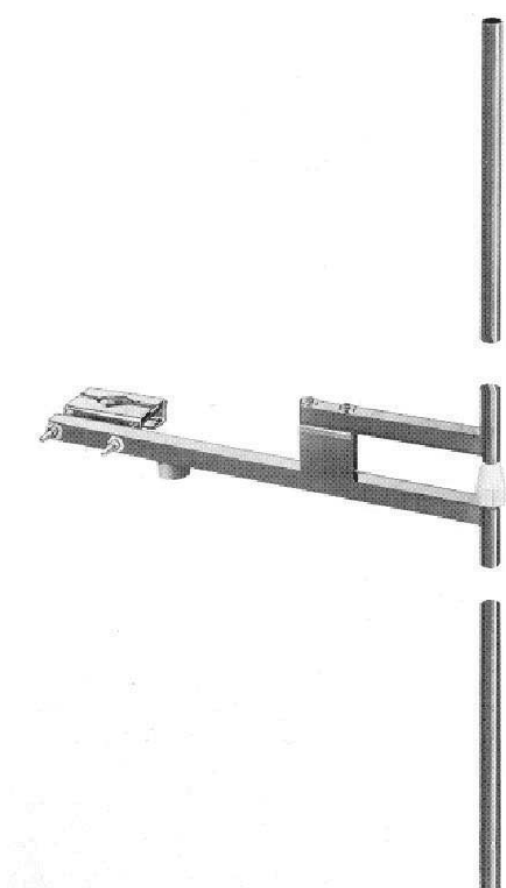
BANT - Building with Antenna on top

#### [Tower Construction Notifications](#)

Notify Tribes and Historic Preservation Officers of your plans to build a tower.

CLOSE WINDOW





**NICOM**  
**BKG1/P**  
**Low Power**

**Broadband**  
**FM Dipole**  
**Dipolo de FM**  
**Banda Ancha**

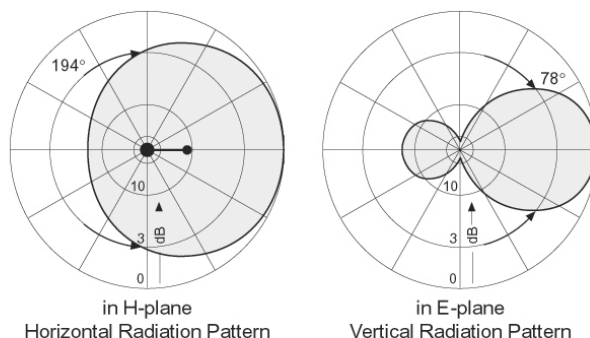
This antenna can be easily installed because of its lightness. Electrically grounded it gives excellent protection against lightning. Combined in arrays of more elements this dipole offers high gain over a wide angle.

Esta antena puede ser facilmente armada debido a su ligereza. Es conectada por tierra lo cual ofrece óptima protección contra relámpagos. Combinada de arrays de varios elementos este dipolo puede ofrecer buena ganancia a través de un amplio ángulo.

**TECHNICAL SPECIFICATIONS**

Antenna type	dipole	Front-to-back ratio	7 dB
Frequency range	87.5 - 108 MHz	Lightning protection	all parts grounded
Bandwidth	20 MHz	Max wind velocity	119 mph (190 km/h)
Impedance	50 Ohms	Wind load	39.6 Lbs (18 kg)
Connectors	N type	Wind surface	1.2 ft <sup>2</sup> (0.11 m <sup>2</sup> )
Power rating	500 Watts max.	Materials (external)	anti-corrosive aluminum
VSWR	< 1.3	Mounting	from 2" to 4"
Polarization	vertical	Weight	8.8 Lbs (4 kg)
Gain	0 dBd (unity gain)	Dimensions	55"×33"×2" (1400×850×60 mm)
H plane	194 degrees	Packing	59"×36"×4" (1500×900×100 mm)
V plane	78 degrees		

**Radiation Patterns (at mid-band)**

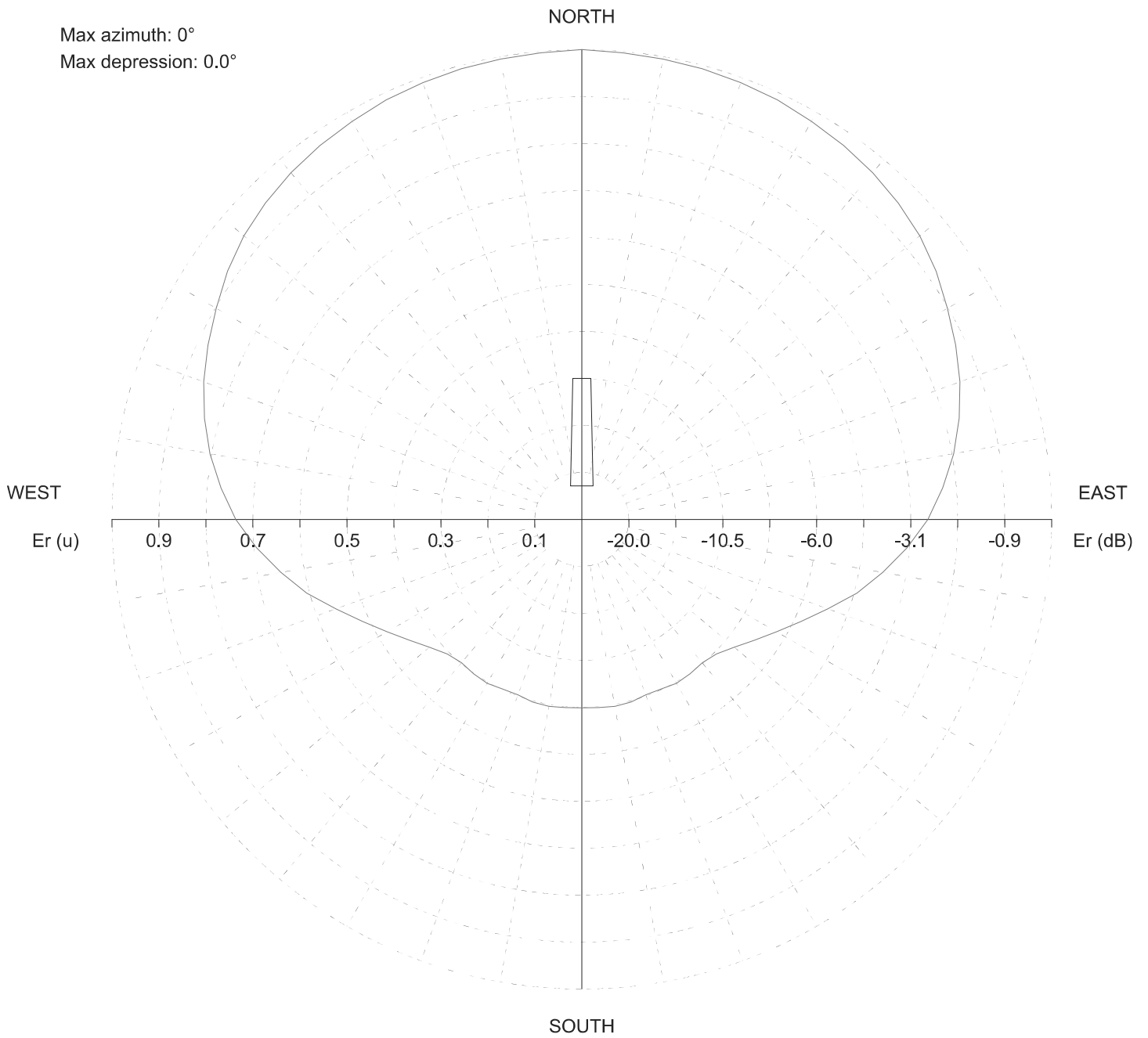


TX station: BKG1/P  
Frequency: 100.00 MHz

Site name:

### Horizontal diagram of Maxima

Max azimuth: 0°  
Max depression: 0.0°



—— 0.0° depres. (Total antenna), Gain (dBd): 0.00 ERP T.max (KW): 1. ERP E.max (KW): 0.776

TX station: BKG1/P

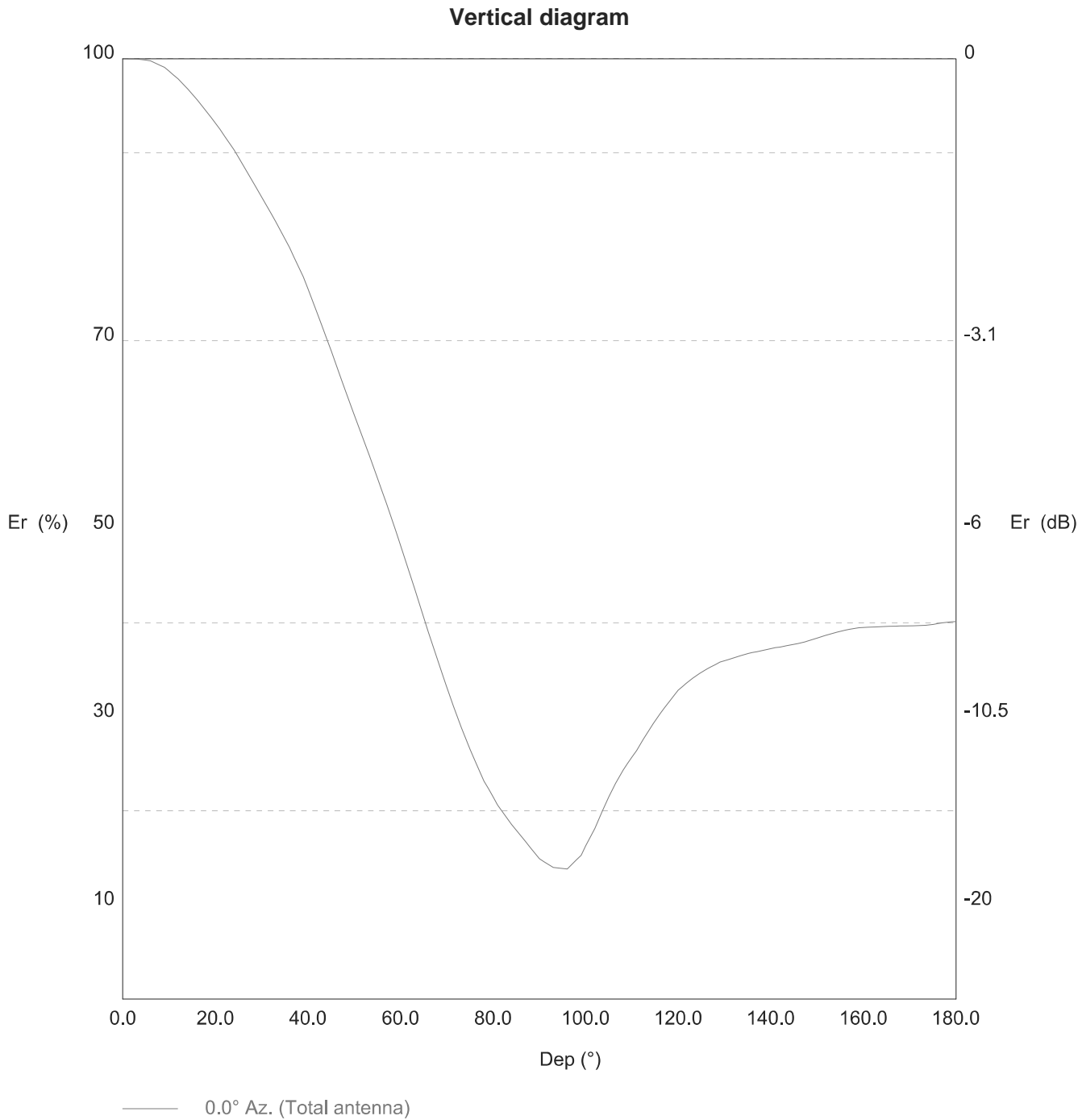
Frequency: 100.00 MHz

**Horizontal pattern tabulation.**

Az (°)	Dep (°)	Er (%)	ERP (W)	Az (°)	Dep (°)	Er (%)	ERP (W)	Az (°)	Dep (°)	Er (%)	ERP (W)
0.0	0.0	100.0	776.2	120.0	0.0	47.9	178.0	240.0	0.0	47.9	178.0
5.0	0.0	99.7	772.1	125.0	0.0	44.8	156.0	245.0	0.0	51.5	205.9
10.0	0.0	99.5	768.1	130.0	0.0	42.3	139.1	250.0	0.0	55.7	240.8
15.0	0.0	99.3	765.7	135.0	0.0	40.5	127.4	255.0	0.0	60.6	285.0
20.0	0.0	98.9	759.7	140.0	0.0	39.9	123.3	260.0	0.0	65.0	328.3
25.0	0.0	98.5	753.4	145.0	0.0	40.1	125.1	265.0	0.0	69.5	374.7
30.0	0.0	97.8	743.2	150.0	0.0	40.3	126.0	270.0	0.0	73.7	421.3
35.0	0.0	97.2	733.2	155.0	0.0	39.9	123.5	275.0	0.0	77.1	461.6
40.0	0.0	96.3	720.1	160.0	0.0	39.8	122.8	280.0	0.0	80.4	501.4
45.0	0.0	95.2	703.9	165.0	0.0	40.3	126.1	285.0	0.0	83.2	536.8
50.0	0.0	93.9	684.4	170.0	0.0	40.4	126.9	290.0	0.0	85.6	569.2
55.0	0.0	92.1	658.3	175.0	0.0	40.3	125.8	295.0	0.0	87.8	598.3
60.0	0.0	89.9	627.1	180.0	0.0	40.1	125.0	300.0	0.0	89.9	627.1
65.0	0.0	87.8	598.3	185.0	0.0	40.3	125.8	305.0	0.0	92.1	658.3
70.0	0.0	85.6	569.2	190.0	0.0	40.4	126.9	310.0	0.0	93.9	684.4
75.0	0.0	83.2	536.8	195.0	0.0	40.3	126.1	315.0	0.0	95.2	703.9
80.0	0.0	80.4	501.4	200.0	0.0	39.8	122.8	320.0	0.0	96.3	720.1
85.0	0.0	77.1	461.6	205.0	0.0	39.9	123.5	325.0	0.0	97.2	733.2
90.0	0.0	73.7	421.3	210.0	0.0	40.3	126.0	330.0	0.0	97.8	743.2
95.0	0.0	69.5	374.7	215.0	0.0	40.1	125.1	335.0	0.0	98.5	753.4
100.0	0.0	65.0	328.3	220.0	0.0	39.9	123.3	340.0	0.0	98.9	759.7
105.0	0.0	60.6	285.0	225.0	0.0	40.5	127.4	345.0	0.0	99.3	765.7
110.0	0.0	55.7	240.8	230.0	0.0	42.3	139.1	350.0	0.0	99.5	768.1
115.0	0.0	51.5	205.9	235.0	0.0	44.8	156.0	355.0	0.0	99.7	772.1



TX station: BKG1/P-  
Frequency: 100.00 MHz



TX station: BKG1/P

Frequency: 100.00 MHz

**Vertical diagram at an azimuth of 0° degrees**

Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)	Dep (°)	Er (%)	ERP (W)
0.0	100.0	776.2	60.0	48.3	180.9	120.0	32.8	83.6
1.0	100.0	776.1	61.0	46.8	169.7	121.0	33.2	85.8
2.0	100.0	775.9	62.0	45.2	158.9	122.0	33.7	88.0
3.0	100.0	775.7	63.0	43.7	148.5	123.0	34.1	90.2
4.0	99.9	774.8	64.0	42.2	138.1	124.0	34.4	91.9
5.0	99.8	773.8	65.0	40.6	128.0	125.0	34.7	93.6
6.0	99.8	772.9	66.0	39.1	118.4	126.0	35.0	95.3
7.0	99.5	769.2	67.0	37.6	109.6	127.0	35.3	96.8
8.0	99.3	765.6	68.0	36.1	101.1	128.0	35.6	98.2
9.0	99.1	762.0	69.0	34.6	92.9	129.0	35.8	99.6
10.0	98.7	755.7	70.0	33.2	85.4	130.0	36.0	100.4
11.0	98.3	749.5	71.0	31.7	78.1	131.0	36.1	101.3
12.0	97.9	743.2	72.0	30.3	71.2	132.0	36.3	102.1
13.0	97.3	735.2	73.0	29.0	65.4	133.0	36.4	103.0
14.0	96.8	727.2	74.0	27.8	59.9	134.0	36.6	103.8
15.0	96.3	719.2	75.0	26.5	54.6	135.0	36.7	104.7
16.0	95.7	710.3	76.0	25.4	50.1	136.0	36.8	105.3
17.0	95.1	701.4	77.0	24.3	45.8	137.0	36.9	105.9
18.0	94.5	692.6	78.0	23.2	41.7	138.0	37.0	106.5
19.0	93.8	683.0	79.0	22.3	38.7	139.0	37.1	107.1
20.0	93.1	673.5	80.0	21.5	35.8	140.0	37.2	107.7
21.0	92.5	664.1	81.0	20.6	33.1	141.0	37.3	108.2
22.0	91.8	653.7	82.0	19.9	30.9	142.0	37.4	108.8
23.0	91.0	643.4	83.0	19.2	28.8	143.0	37.5	109.3
24.0	90.3	633.1	84.0	18.6	26.7	144.0	37.6	109.8
25.0	89.5	621.6	85.0	17.9	25.0	145.0	37.7	110.4
26.0	88.7	610.3	86.0	17.3	23.4	146.0	37.8	111.0
27.0	87.8	599.0	87.0	16.7	21.8	147.0	37.9	111.6
28.0	87.0	587.3	88.0	16.1	20.2	148.0	38.1	112.5
29.0	86.1	575.7	89.0	15.5	18.7	149.0	38.2	113.4
30.0	85.3	564.3	90.0	14.9	17.3	150.0	38.4	114.2
31.0	84.4	552.9	91.0	14.6	16.5	151.0	38.5	115.2
32.0	83.5	541.7	92.0	14.3	15.8	152.0	38.7	116.1
33.0	82.7	530.6	93.0	14.0	15.2	153.0	38.8	117.1
34.0	81.7	518.8	94.0	13.9	15.0	154.0	39.0	117.9
35.0	80.8	507.1	95.0	13.9	14.9	155.0	39.1	118.6
36.0	79.9	495.6	96.0	13.8	14.8	156.0	39.2	119.4
37.0	78.9	482.9	97.0	14.3	15.9	157.0	39.3	119.9
38.0	77.8	470.4	98.0	14.8	17.0	158.0	39.4	120.4
39.0	76.8	458.0	99.0	15.3	18.1	159.0	39.5	120.9
40.0	75.5	442.7	100.0	16.2	20.5	160.0	39.5	121.1
41.0	74.2	427.7	101.0	17.2	23.0	161.0	39.5	121.3
42.0	72.9	412.9	102.0	18.1	25.5	162.0	39.5	121.4
43.0	71.6	398.0	103.0	19.3	28.8	163.0	39.6	121.6
44.0	70.3	383.3	104.0	20.4	32.3	164.0	39.6	121.7
45.0	68.9	368.9	105.0	21.5	35.9	165.0	39.6	121.9
46.0	67.5	354.2	106.0	22.4	39.1	166.0	39.6	122.0
47.0	66.2	339.7	107.0	23.4	42.4	167.0	39.6	122.0
48.0	64.8	325.5	108.0	24.3	45.8	168.0	39.7	122.1
49.0	63.4	312.3	109.0	25.0	48.5	169.0	39.7	122.1
50.0	62.1	299.4	110.0	25.7	51.3	170.0	39.7	122.2
51.0	60.8	286.8	111.0	26.4	54.2	171.0	39.7	122.2
52.0	59.5	274.4	112.0	27.2	57.6	172.0	39.7	122.4
53.0	58.1	262.3	113.0	28.1	61.1	173.0	39.7	122.5
54.0	56.8	250.4	114.0	28.9	64.6	174.0	39.8	122.7
55.0	55.4	238.3	115.0	29.6	67.9	175.0	39.8	123.2
56.0	54.0	226.6	116.0	30.3	71.1	176.0	39.9	123.7
57.0	52.6	215.1	117.0	31.0	74.4	177.0	40.0	124.2
58.0	51.2	203.3	118.0	31.6	77.5	178.0	40.0	124.5
59.0	49.7	191.9	119.0	32.2	80.5	179.0	40.1	124.7