

RIO BRAVO ENTERTAINMENT, LLC
FM Translator K260BC
Henly, TX
PROPOSED: CH261FT, 100.1 MHz, 0.250 kW, 137m HAAT

ENGINEERING STATEMENT

This engineering statement was prepared for Rio Bravo Entertainment, LLC, licensee of FM translator K260BC in support of a minor change application to change antenna site location and increase power to 0.250 kW ERP (main lobe). This translator will be co-located at tower #1002767 with three Kathrein-Scala YA7/50N Yagi array antennas 87 meters above ground level, oriented 105°T, 190°T and 270°T, with main lobe at 270°T.

ALLOCATION CONSIDERATIONS

Figure 1 is a portion of a USGS topographic map depicting the location of the proposed K260BC site. Figure 2A is an allocation map showing contours of K260BC-proposed and contours of allocation interest. Figure 2B shows the licensed and proposed K260BC 60 dBu contour overlap, as well as the 75 dBu of KASE-FM auxiliary (#2).

As shown in Figure 2A, none of the allocation contours of this proposal cause nor receive prohibitive overlap. While this translator is within the 60 dBu service contour of KASE-FM, it is noted that the KASE-FM (Auxiliary #2) 75 dBu contour, worst case, falls over the site and hence the K260BC 115 dBu contour shall not cause interference. The greatest distance to the 115 dBu contour is 0.4 km and within that radius there are no buildings occupied by people. Hence no interference will be caused to KASE-FM.

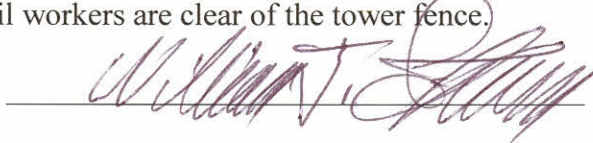
Figure 3A is a composite polar plot and tabulation of the horizontal pattern of the Kathrein-Scala YA7/50N Yagi antennas, while Figure 3B is a tabulation of contour distances for this proposal.

ENVIRONMENTAL CONSIDERATIONS

This was addressed in OET Bulletin #65, released August 1, 1997. Table B on Page 67 of the document depicts the ANSI/IEEE protection requirements. The maximum permissible exposure for uncontrolled environments in the 30 to 300 MHz band is a power density of 0.2 milliwatts per centimeter squared (mw/cm^2). As a worst-case, power density is studied at points 2 meters above ground level contiguous to the FM translator tower and if not excessive at that elevation, it would certainly not be excessive below that elevation where the general public may have access.

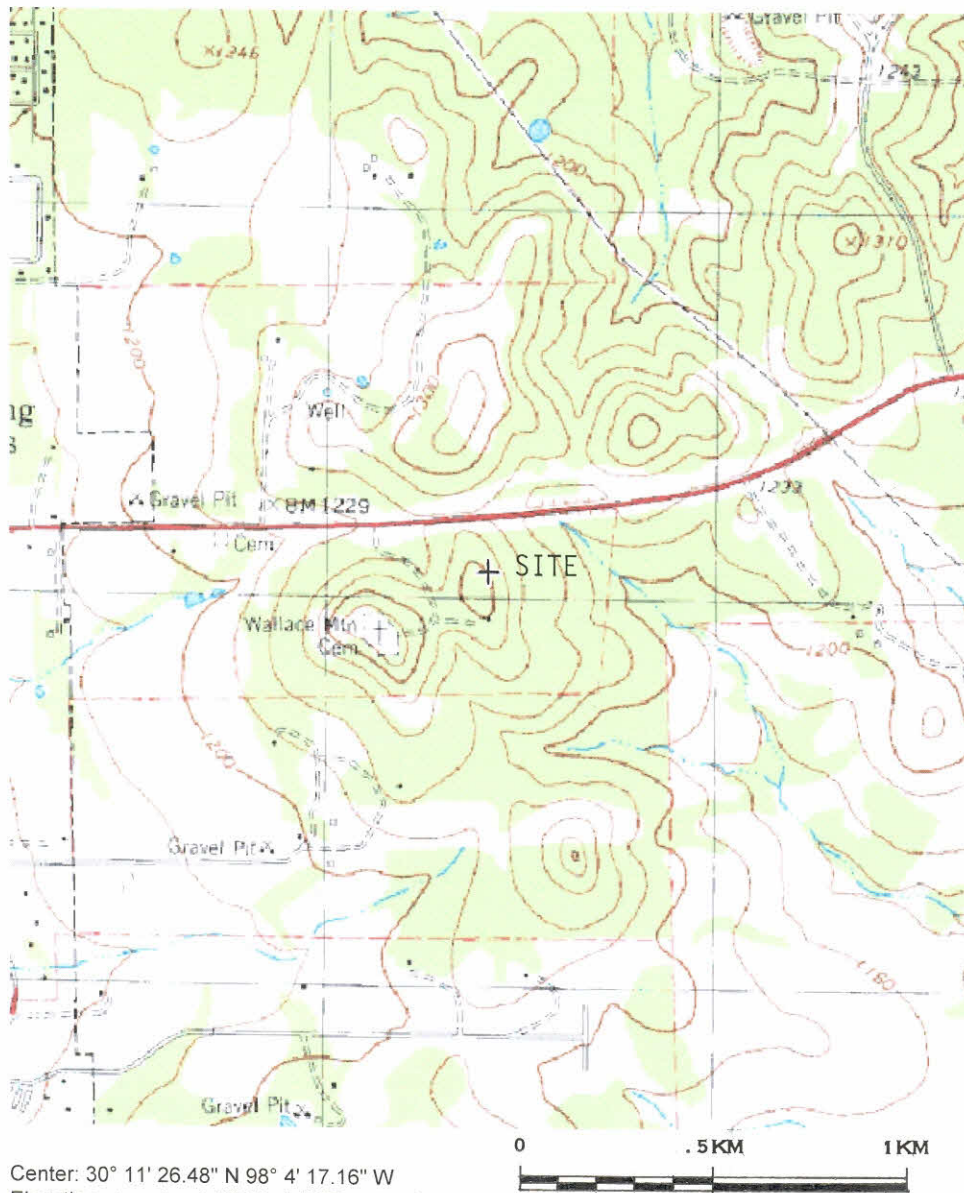
Since this FM translator will operate at 0.250 kW ERP maximum with three FM antennas 87 meters above ground level, the greatest radiofrequency power density 2 meters above ground level is defined by the field elevation pattern of the Kathrein-Scala antenna and produces a maximum power density of 0.00024 mw/cm^2 at that elevation. This is 0.12% of the 0.2 mw/cm^2 limit for an uncontrolled environment. There are appropriate RF warning signs on the tower fence. Should maintenance personnel need access to the tower, the FM translator facility will either reduce power or cease operation until workers are clear of the tower fence.

December 9, 2010

A handwritten signature in dark ink, appearing to read 'William J. Sitzman', is written over a horizontal line.

William J. Sitzman
Consulting Radio Engineer

FIGURE 1



Center: 30° 11' 26.48" N 98° 4' 17.16" W
 Elevation at center: 1,302 feet (397 meters)
 Quad: USGS Dripping Springs
 Drg Name: o30098b1
 Drg Source Scale: 1:24,000

FIGURE 2A

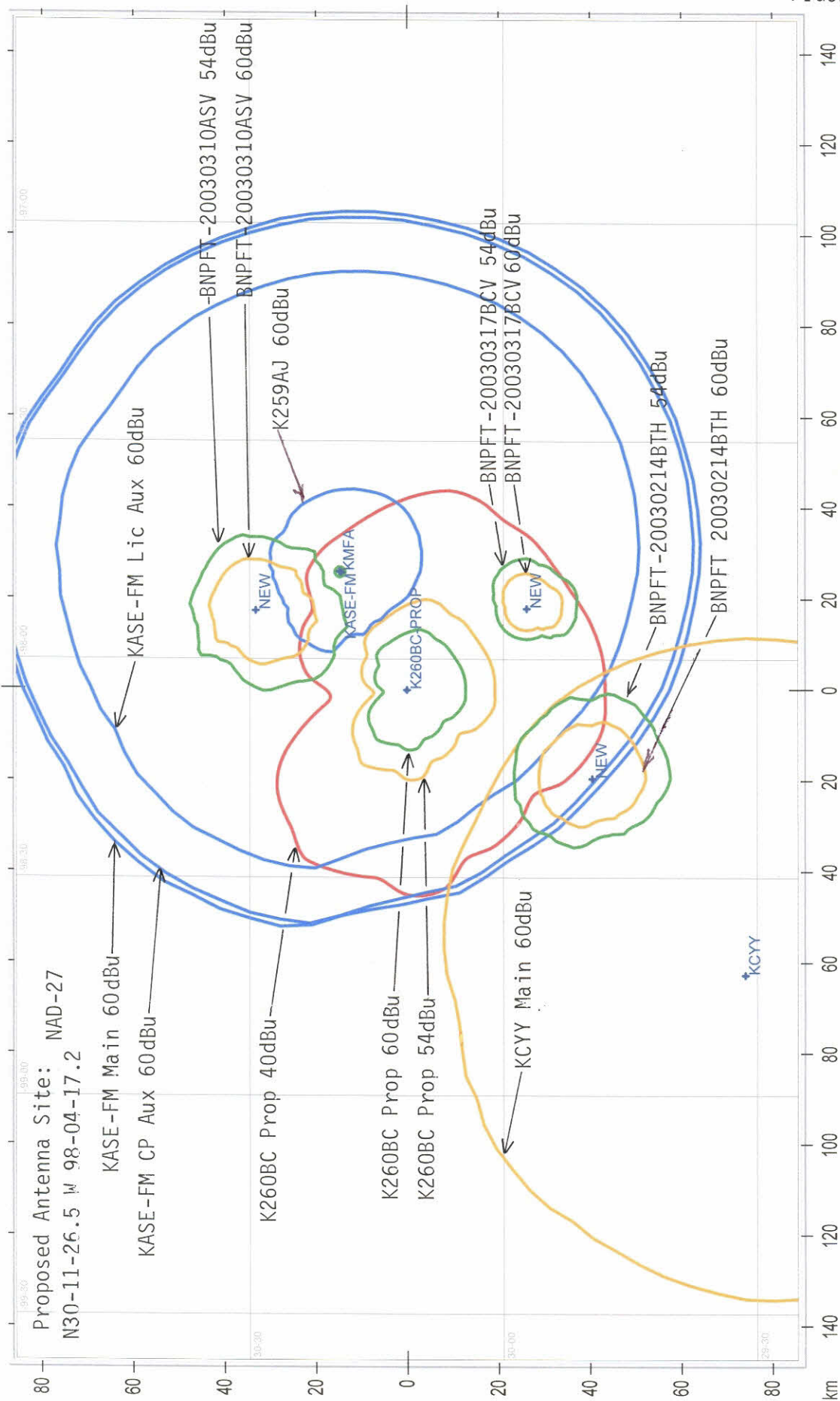
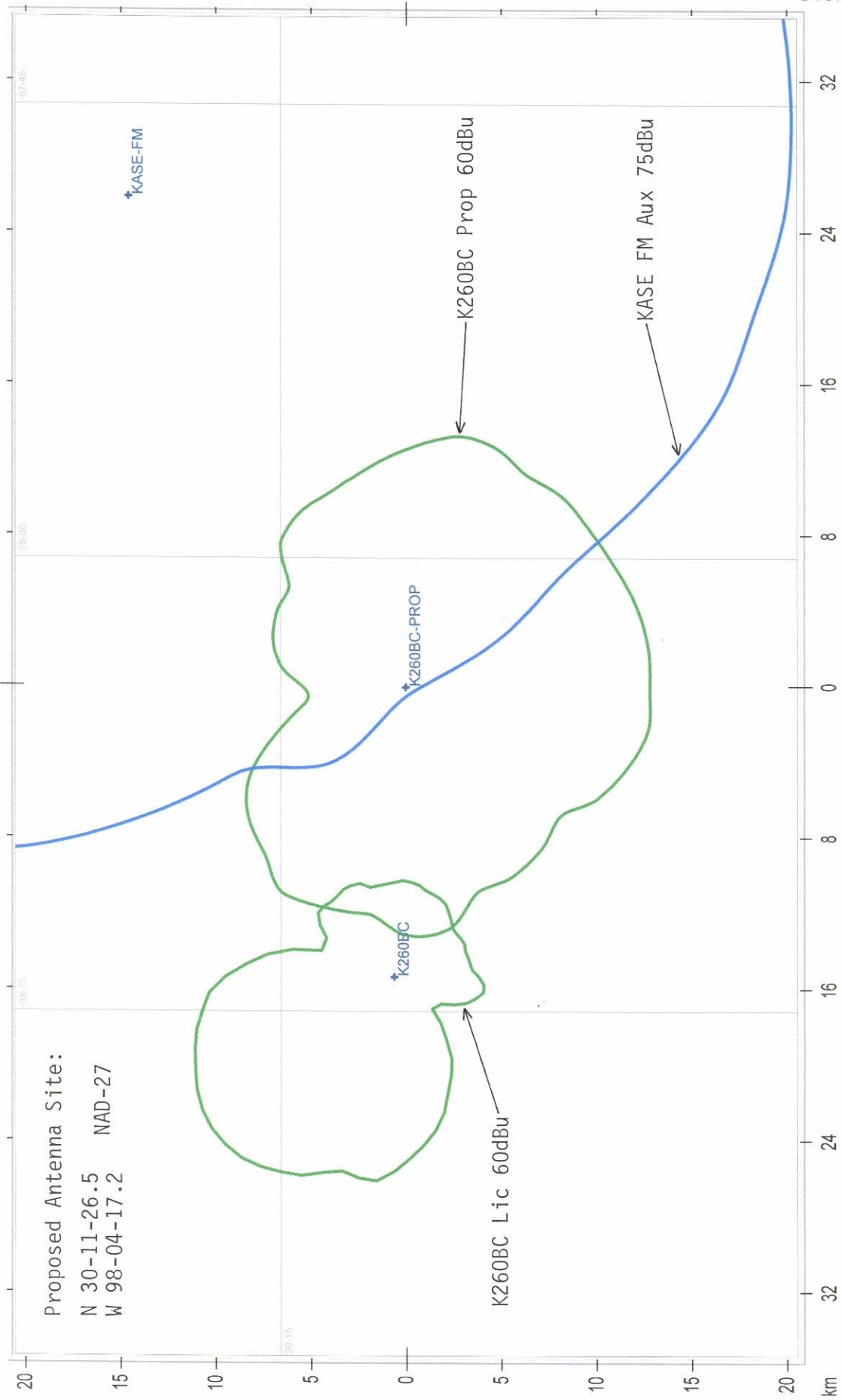
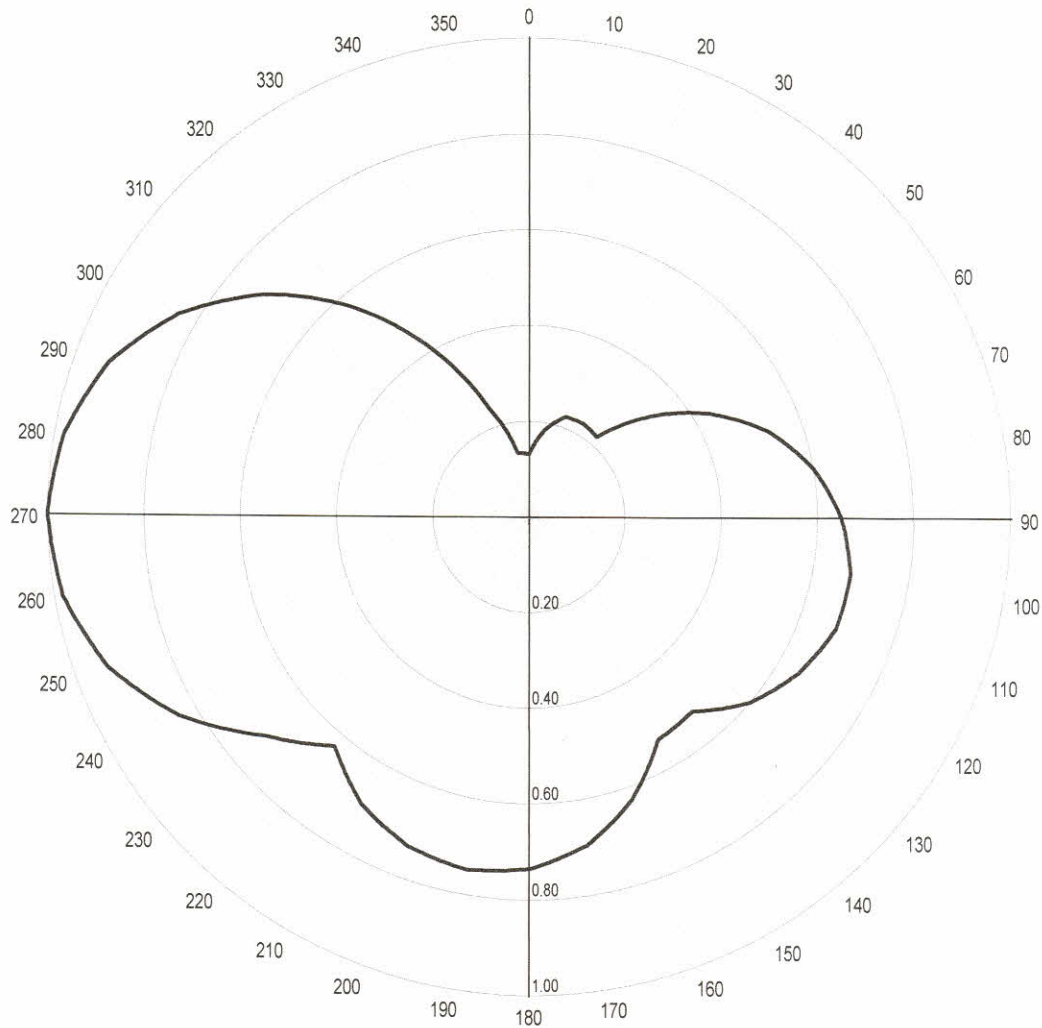


FIGURE 2B

K260BC Ch261 (100.1 MHz) Detailed Allocation Map





Azim	Rel.FS	ERP [W]	dBk	Azim	Rel.FS	ERP [W]	dBk	Azim	Rel.FS	ERP [W]	dBk	Azim	Rel.FS	ERP [W]	dBk
0.0	0.132	4.356	-23.609	90.0	0.649	105.300	-9.776	180.0	0.735	135.056	-8.695	270.0	1.000	250.000	-6.021
5.0	0.159	6.320	-21.993	95.0	0.663	109.892	-9.590	185.0	0.741	137.270	-8.624	275.0	0.990	245.025	-6.108
10.0	0.186	8.649	-20.630	100.0	0.678	114.921	-9.396	190.0	0.748	139.876	-8.543	280.0	0.980	240.100	-6.196
15.0	0.205	10.506	-19.786	105.0	0.678	114.921	-9.396	195.0	0.740	136.900	-8.636	285.0	0.954	227.529	-6.430
20.0	0.224	12.544	-19.016	110.0	0.678	114.921	-9.396	200.0	0.733	134.322	-8.719	290.0	0.929	215.760	-6.660
25.0	0.225	12.656	-18.977	115.0	0.662	109.561	-9.603	205.0	0.714	127.449	-8.947	295.0	0.884	195.364	-7.092
30.0	0.226	12.769	-18.938	120.0	0.647	104.652	-9.803	210.0	0.695	120.756	-9.181	300.0	0.840	176.400	-7.535
35.0	0.222	12.321	-19.094	125.0	0.623	97.032	-10.131	215.0	0.661	109.230	-9.617	305.0	0.779	151.710	-8.190
40.0	0.219	11.990	-19.212	130.0	0.599	89.700	-10.472	220.0	0.628	98.596	-10.061	310.0	0.718	128.881	-8.898
45.0	0.274	18.769	-17.266	135.0	0.563	79.242	-11.010	225.0	0.672	112.896	-9.473	315.0	0.644	103.684	-9.843
50.0	0.330	27.225	-15.650	140.0	0.528	69.696	-11.568	230.0	0.716	128.164	-8.922	320.0	0.570	81.225	-10.903
55.0	0.382	36.481	-14.379	145.0	0.532	70.756	-11.502	235.0	0.777	150.932	-8.212	325.0	0.487	59.292	-12.270
60.0	0.435	47.306	-13.251	150.0	0.536	71.824	-11.437	240.0	0.838	175.561	-7.556	330.0	0.404	40.804	-13.893
65.0	0.482	58.081	-12.360	155.0	0.581	84.390	-10.737	245.0	0.884	195.364	-7.092	335.0	0.322	25.921	-15.863
70.0	0.529	69.960	-11.551	160.0	0.627	98.282	-10.075	250.0	0.931	216.690	-6.642	340.0	0.241	14.520	-18.380
75.0	0.564	79.524	-10.995	165.0	0.661	109.230	-9.617	255.0	0.957	228.962	-6.402	345.0	0.188	8.836	-20.537
80.0	0.599	89.700	-10.472	170.0	0.696	121.104	-9.168	260.0	0.983	241.572	-6.170	350.0	0.136	4.624	-23.350
85.0	0.624	97.344	-10.117	175.0	0.715	127.806	-8.934	265.0	0.991	245.520	-6.099	355.0	0.134	4.489	-23.479

K260BC - Prop CONTOUR DATA.TXT

Callsign : K260BC-PROP
 Coordinates : 30-11-26.5 N, 98-04-17.2 W
 Frequency (MHz): 100.10000
 HAAT (m): 137.00 AMSL (m): 479.00
 Elevation (m): 392.00 Tower AGL (m): 87.00
 ERP (w): 250
 TX power (w): 0 Gain (dB): 0.00
 City/State : HENLY, TX
 ARN :
 Distance (km): 0
 Licensee : RIO BRAVO ENTERTAINMENT LLC

Contour type : F(50,10)
 Signal strength : 54.000 dBu
 Area covered : 0.000 sq. km
 Population covered: 0 persons
 Contour HAAT (m) : 136.5

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	347	132	7.6	90	332	147	18.8	180	342	137	19.3	270	375	104	19.6
30	317	162	11.1	120	324	155	19.3	210	360	119	17.2	300	363	116	19.0
60	320	159	15.5	150	299	180	19.0	240	385	94	16.7	330	346	133	13.3

Contour type : F(50,50)
 Signal strength : 60.000 dBu
 Area covered : 0.000 sq. km
 Population covered: 0 persons
 Contour HAAT (m) : 136.5

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	347	132	5.4	90	332	147	12.6	180	342	137	12.9	270	375	104	13.1
30	317	162	7.9	120	324	155	12.9	210	360	119	11.7	300	363	116	12.7
60	320	159	10.8	150	299	180	12.8	240	385	94	11.5	330	346	133	9.5

Contour type : F(50,10)
 Signal strength : 115.000 dBu
 Area covered : 0.000 sq. km
 Population covered: 0 persons
 Contour HAAT (m) : 136.5

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	347	132	0.1	90	332	147	0.2	180	342	137	0.2	270	375	104	0.4
30	317	162	0.1	120	324	155	0.2	210	360	119	0.2	300	363	116	0.3
60	320	159	0.1	150	299	180	0.1	240	385	94	0.3	330	346	133	0.1

Contour type : F(50,10)
 Signal strength : 40.000 dBu
 Area covered : 0.000 sq. km
 Population covered: 0 persons
 Contour HAAT (m) : 136.5

Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist	Brg	AT	HAAT	Dist
0	347	132	17.7	90	332	147	42.2	180	342	137	43.5	270	375	104	45.0
30	317	162	26.4	120	324	155	43.1	210	360	119	39.9	300	363	116	43.4
60	320	159	36.2	150	299	180	42.2	240	385	94	39.3	330	346	133	31.9

□