

RIO BRAVO ENTERTAINMENT, LLC
FM Translator K260BC
Henly, TX
PROPOSED: CH261FT, 100.1 MHz, 0.070 kW, 149.5m 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 frequency from 99.9 MHz to 100.1 Mhz with 0.070 kW ERP (main lobe) and change community of license to Henly, TX. This translator will be co-located at tower #1218246 with one three-bay Kathrein-Scala 3XCA5-FM/CP/RM/50N Yagi array antennas 110 meters above ground level, with main lobe at 300°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 68 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) 68 dBu contour, worst case, falls over the site and hence the K260BC 108 dBu contour shall not cause interference. Since a three-bay antenna is proposed at 110 meters AGL and considering the vertical plane pattern of the antenna, the 108 dBu contour will not reach ground level nor any building occupied by people. Hence no interference will be caused to KASE-FM.

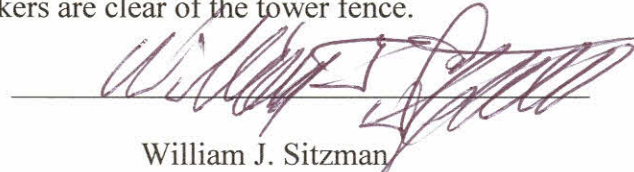
Figure 3A is a polar plot and tabulation of the horizontal pattern of the Kathrein-Scala 3XCA5-FM/CP/RM/50N Yagi array antenna, while Figure 3B, Pages 1 to 3, is a tabulation and graph of the vertical pattern.

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 operates at 0.070 kW ERP with a 3-bay FM antenna 110 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 0.000044 mw/cm² at that elevation. This is 0.022% of the 0.2 mw/cm² 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.

October 15, 2010



William J. Sitzman
Consulting Radio Engineer

K260BC Ch261 (100.1 MHz) Allocation Map

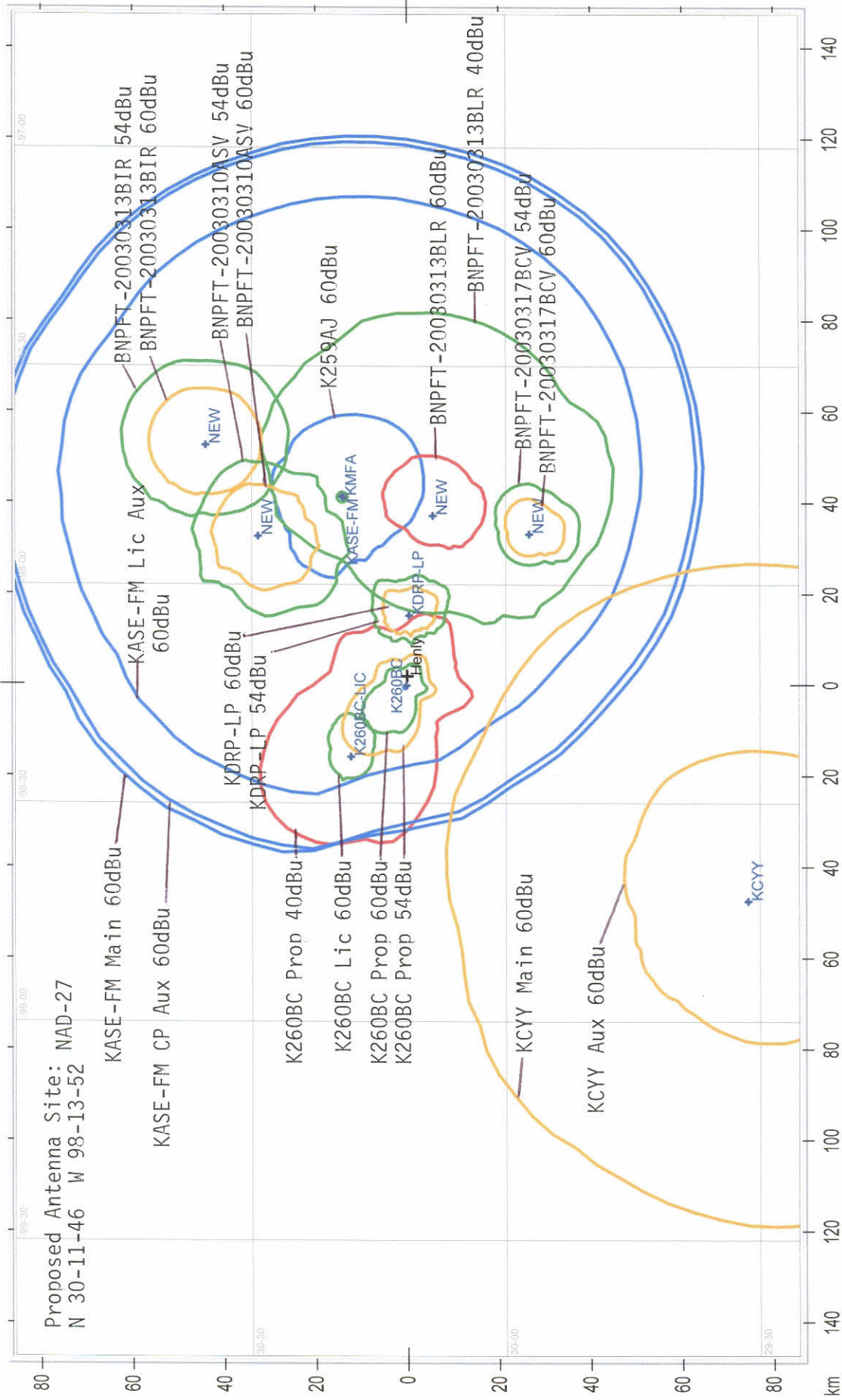


FIGURE 2A Amended

K260BC Ch261 (100.1 MHz) Detailed Allocation Map

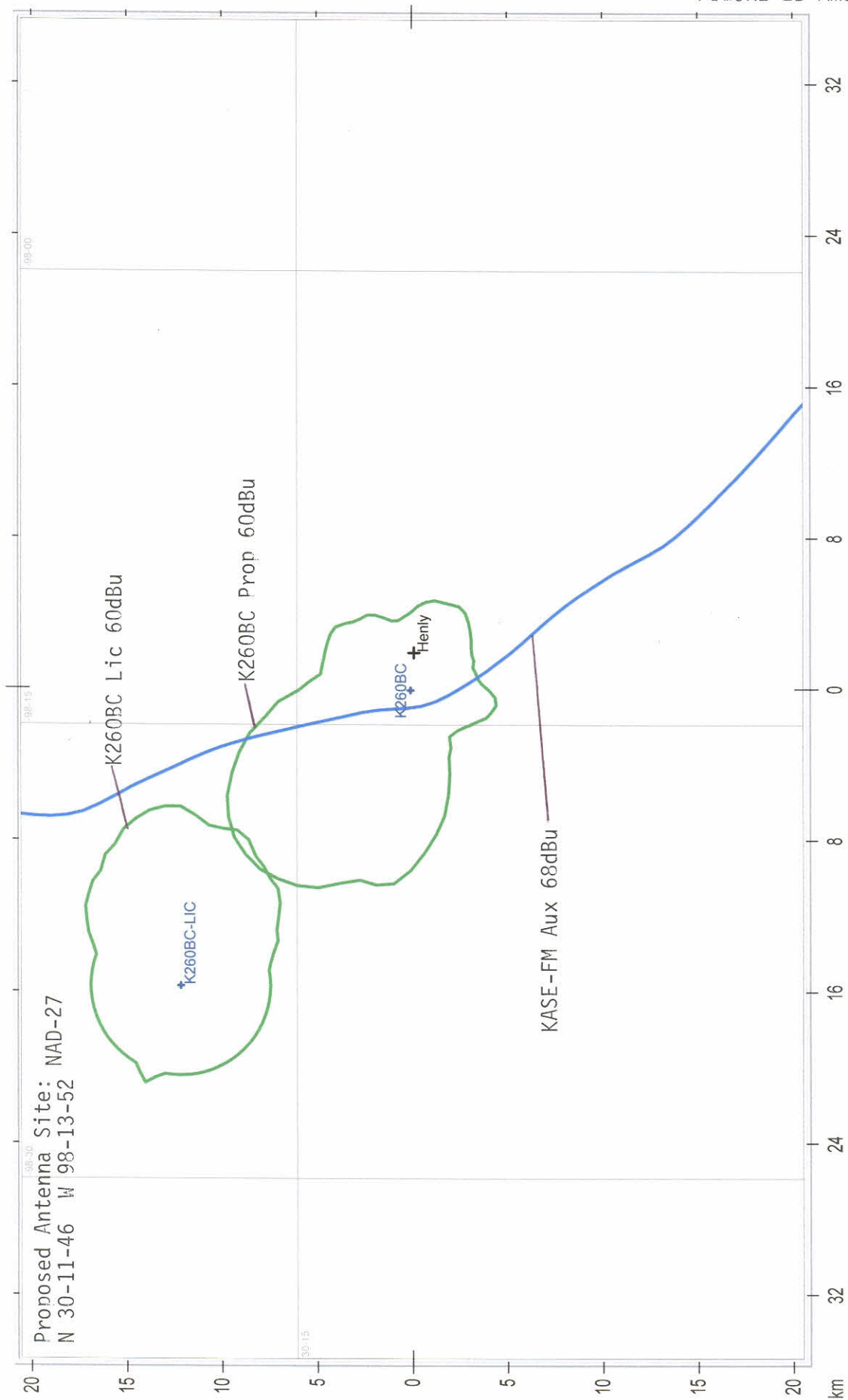
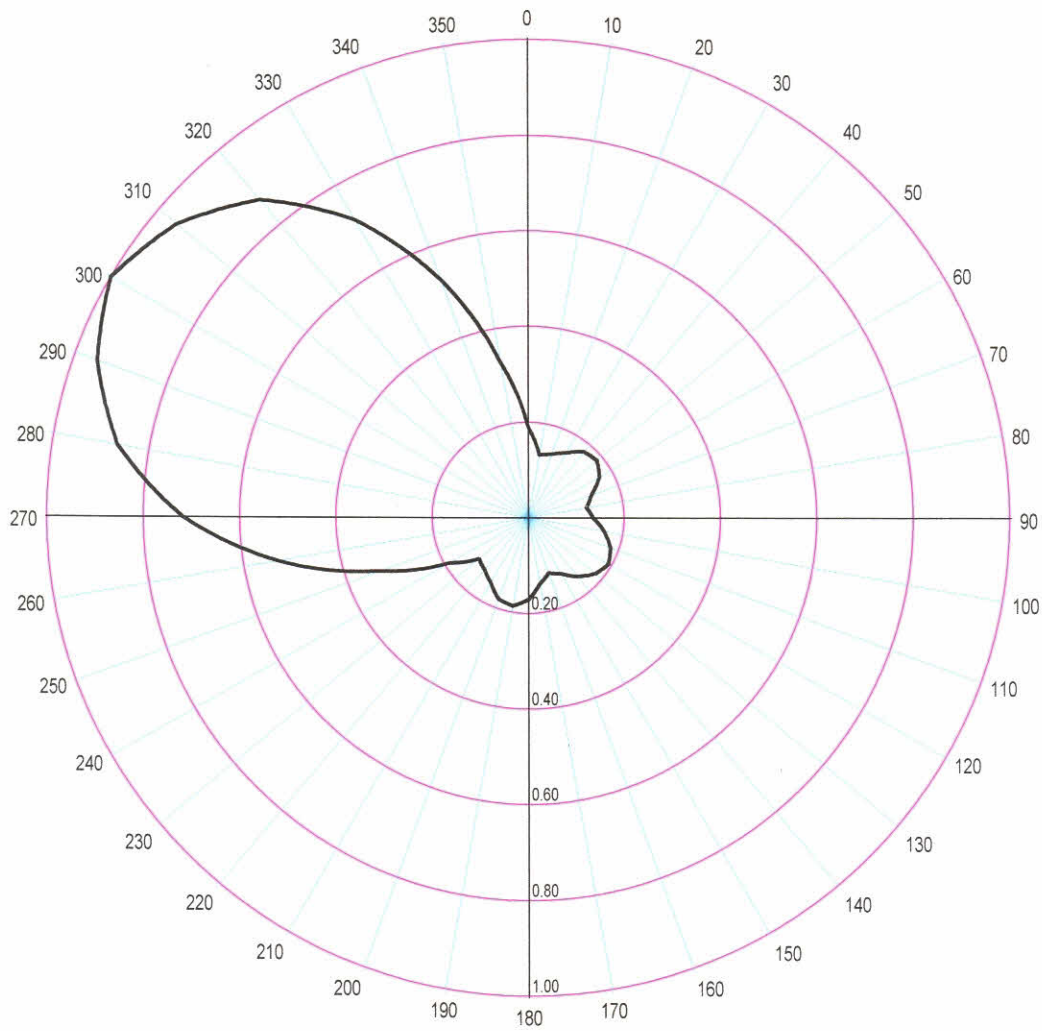


FIGURE 2B Amended



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	0.190	2.527	-25.974	90.0	0.135	1.276	-28.942	180.0	0.171	2.047	-26.889	270.0	0.718	36.087	-14.427
5.0	0.162	1.837	-27.359	95.0	0.147	1.513	-28.203	185.0	0.179	2.243	-26.492	275.0	0.792	43.908	-13.575
10.0	0.134	1.257	-29.007	100.0	0.160	1.792	-27.467	190.0	0.187	2.448	-26.112	280.0	0.866	52.497	-12.799
15.0	0.138	1.333	-28.751	105.0	0.171	2.047	-26.889	195.0	0.184	2.370	-26.253	285.0	0.909	57.840	-12.378
20.0	0.142	1.411	-28.503	110.0	0.182	2.319	-26.348	200.0	0.181	2.293	-26.395	290.0	0.952	63.441	-11.976
25.0	0.149	1.554	-28.085	115.0	0.187	2.448	-26.112	205.0	0.169	1.999	-26.991	295.0	0.976	66.680	-11.760
30.0	0.157	1.725	-27.631	120.0	0.193	2.607	-25.838	210.0	0.157	1.725	-27.631	300.0	1.000	70.000	-11.549
35.0	0.169	1.999	-26.991	125.0	0.187	2.448	-26.112	215.0	0.149	1.554	-28.085	305.0	0.976	66.680	-11.760
40.0	0.181	2.293	-26.395	130.0	0.182	2.319	-26.348	220.0	0.142	1.411	-28.503	310.0	0.952	63.441	-11.976
45.0	0.184	2.370	-26.253	135.0	0.171	2.047	-26.889	225.0	0.138	1.333	-28.751	315.0	0.909	57.840	-12.378
50.0	0.187	2.448	-26.112	140.0	0.160	1.792	-27.467	230.0	0.134	1.257	-29.007	320.0	0.866	52.497	-12.799
55.0	0.179	2.243	-26.492	145.0	0.147	1.513	-28.203	235.0	0.162	1.837	-27.359	325.0	0.792	43.908	-13.575
60.0	0.171	2.047	-26.889	150.0	0.135	1.276	-28.942	240.0	0.190	2.527	-25.974	330.0	0.718	36.087	-14.427
65.0	0.155	1.682	-27.742	155.0	0.129	1.165	-29.337	245.0	0.259	4.696	-23.283	335.0	0.623	27.169	-15.659
70.0	0.140	1.372	-28.626	160.0	0.123	1.059	-29.751	250.0	0.329	7.577	-21.205	340.0	0.528	19.515	-17.096
75.0	0.131	1.201	-29.204	165.0	0.131	1.201	-29.204	255.0	0.428	12.823	-18.920	345.0	0.428	12.823	-18.920
80.0	0.123	1.059	-29.751	170.0	0.140	1.372	-28.626	260.0	0.528	19.515	-17.096	350.0	0.329	7.577	-21.205
85.0	0.129	1.165	-29.337	175.0	0.155	1.682	-27.742	265.0	0.623	27.169	-15.659	355.0	0.259	4.696	-23.283