

TECHNICAL EXHIBIT
APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
STATION KRSC-DT
CLAREMORE, OKLAHOMA
CH 36 144 KW (MAX-DA) 455 M

Technical Narrative

This Technical Exhibit supports an application for digital television (DTV) station KRSC-DT which is paired with NTSC (analog) channel 35 at Claremore, Oklahoma. This application requests a modification of its construction permit (CP) for a digital television operation on channel 36 at Claremore.¹

Proposed Facilities

KRSC-DT is proposing to install a common TFU-29ETT-R S220 DC antenna system, manufactured by Dielectric, for both its DTV and NTSC operation. No change in transmitter site location is proposed. The proposed KRSC-DT effective radiated power exceeds the Commission's allocated maximum effective radiated power. Therefore, an allocation study was completed to ensure no prohibited interference would occur. It is also noted that the herein proposed noise-limited coverage contour does not exceed the presently authorized noise-limited contour.

¹ The current KRSC-DT construction permit file number is BMPEDT-20021118ABU.

The proposed DTV transmitter site will be located on the existing KRSC-TV tower located at:

36° 24' 03" North Latitude
95° 36' 30" West Longitude

A map of the transmitter site is provided in Figure 1. A sketch of antenna and pertinent elevations are included as Figure 2.

Figure 4 are the horizontal and vertical plane radiation patterns for the proposed DTV antenna system.

Figure 3 is a map showing the DTV predicted coverage contour. The map provides the predicted F(50,90) noise limited contour. The extent of the contour has been calculated using the normal FCC prediction method. The Claremore city limits were derived from information contained in the 2000 U.S. Census of Population and Housing.

Allocation Considerations

The proposed KRSC-DT Channel 36 facility meets the requirements of Section 73.623 of the FCC Rules concerning predicted interference to other existing NTSC facilities and DTV allotments and assignments. Longley-Rice interference analyses were conducted pursuant to the requirements of the FCC Rules; OET Bulletin No. 69; and published FCC guidelines for preparation of such interference analyses. The Longley-Rice interference analyses were conducted using the software developed by du Treil, Lundin & Rackley, Inc. based on the FCC published software routines.² Stations selected for

² The du Treil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in

analysis were determined pursuant to the distance requirements outlined in the FCC DTV Processing Guidelines Public Notice. The results of the interference analyses for the proposed KRSC-DT facility are summarized herein at Figure 5.

As indicated therein, the proposed facility will meet the 2%/10% criterion outlined in the FCC Rules and published guidelines with respect to all considered stations.³

Radiofrequency Electromagnetic Field Exposure

The proposed KRSC-DT facilities were evaluated in terms of potential radiofrequency electromagnetic field exposure at ground level to workers and the general public. The radiation center for the proposed KRSC-DT antenna is located 247 meters (810 feet) above ground level. The effective radiated average power is 144 kilowatts. A relative field value of 0.2 is assumed for the antenna's downward radiation. As can be seen from Figure 4, the maximum downward relative field for depression angles greater than 10° does not exceed 0.2. The calculated power density at a point 2 meters above ground level is 0.003 mW/cm². This is less than five percent of the Commission's recommended limit of 0.40 mW/cm² for channel 36 in an "uncontrolled" environment.

the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 2 km was employed.

³ Interference analysis results reflect the net change in interference to a given station considering the interference predicted to occur from all other stations (i.e. "masking") including the allotment facility for KRSC-DT. This properly reflects the net interference change for determining compliance with the FCC DTV2%/10% *de minimis* standard.

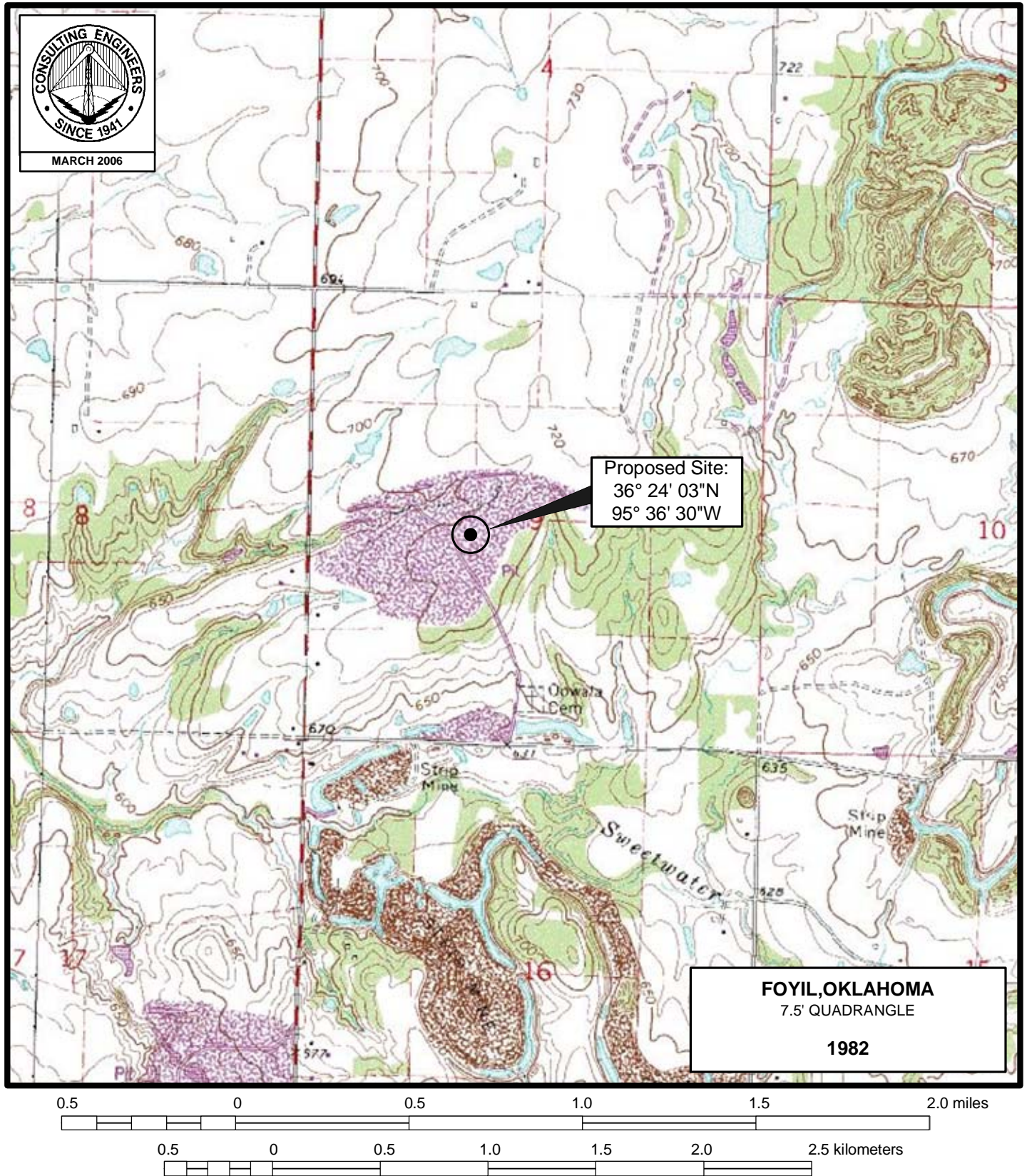
Access to the transmitting site is restricted and appropriately marked with warning signs. As this is a multi-user site, an agreement will control access to the site. In the event that workers or other authorized personnel enter restricted areas or climb the tower, appropriate measures will be taken 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 monitors or scheduling work when the stations are at reduced power or shut down.

Charles Cooper

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 32437
941.329.6000

March 14, 2006

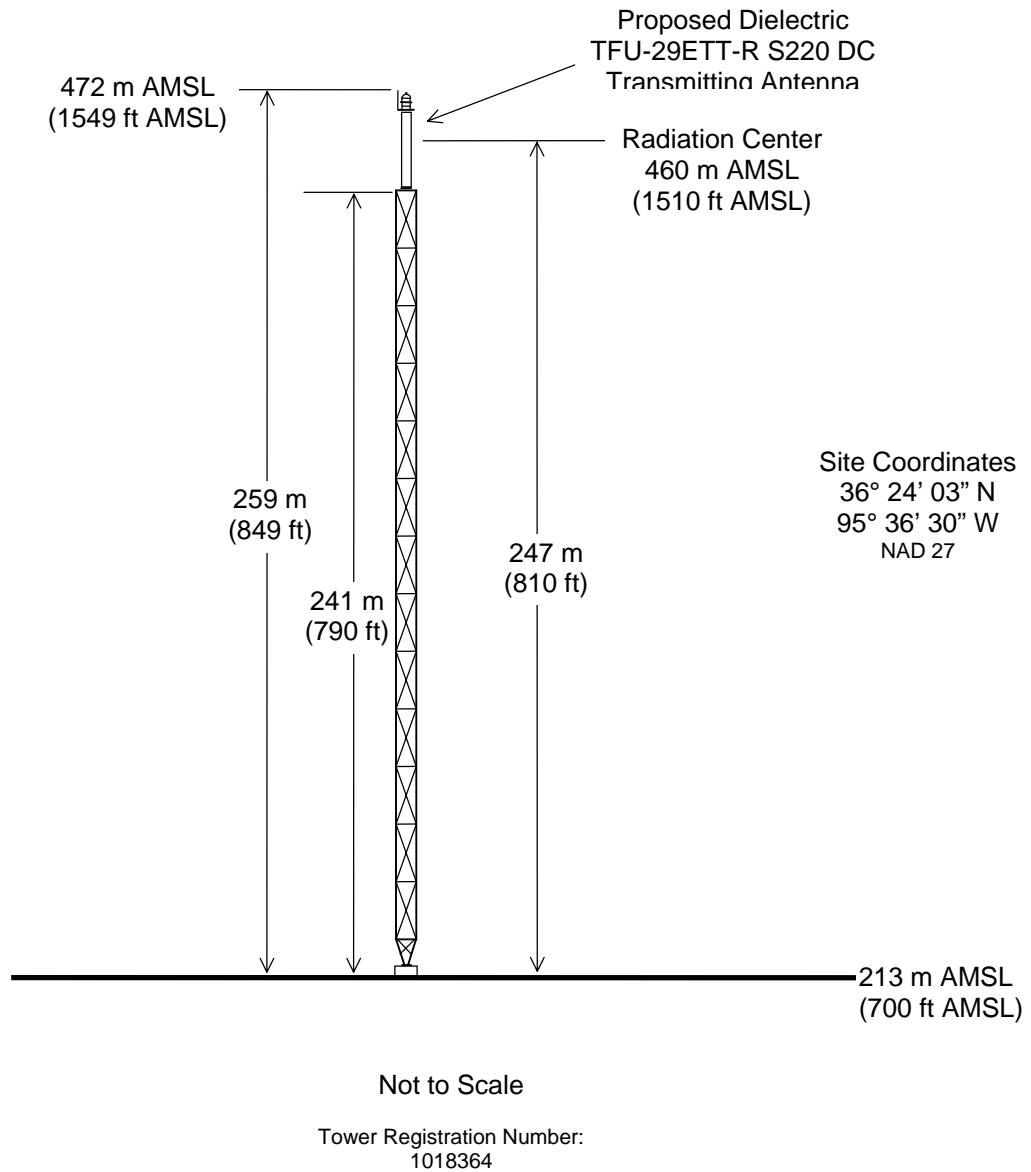
Figure 1



PROPOSED TRANSMITTER SITE

TELEVISION STATION KRSC-DT
CLAREMORE, OKLAHOMA
CH 36 144 KW (MAX-DA) 255 M

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

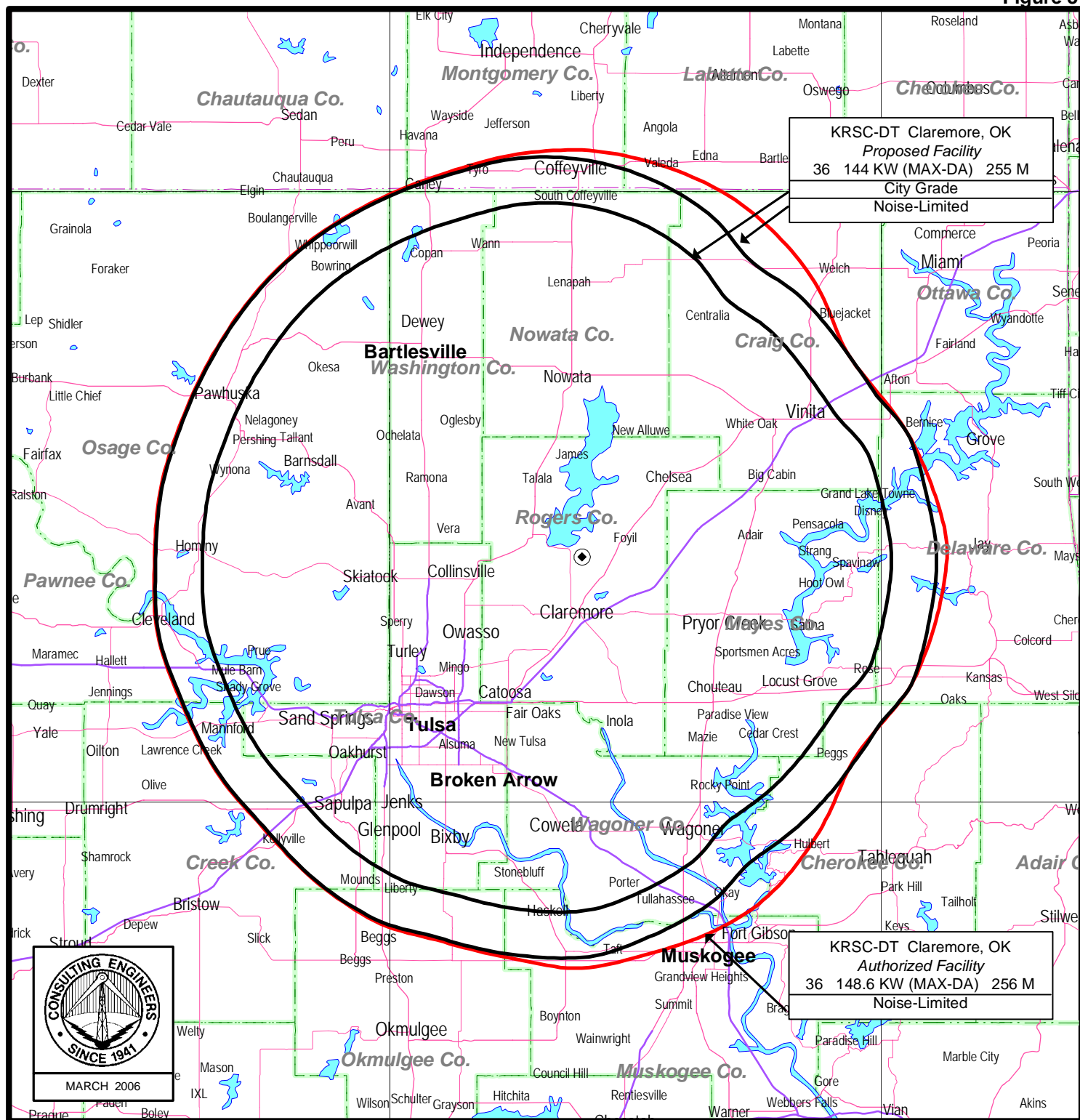


PROPOSED ANTENNA AND SUPPORTING STRUCTURE

TELEVISION STATION KRSC-TV
 CLAREMORE, OKLAHOMA
 CH 36 144 KW (MAX-DA) 255 M

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

Figure 3



PREDICTED FCC COVERAGE CONTOURS

TELEVISION STATION KRSC-DT
 CLAREMORE, OKLAHOMA
 CH 36 144 KW (MAX-DA) 255 M

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

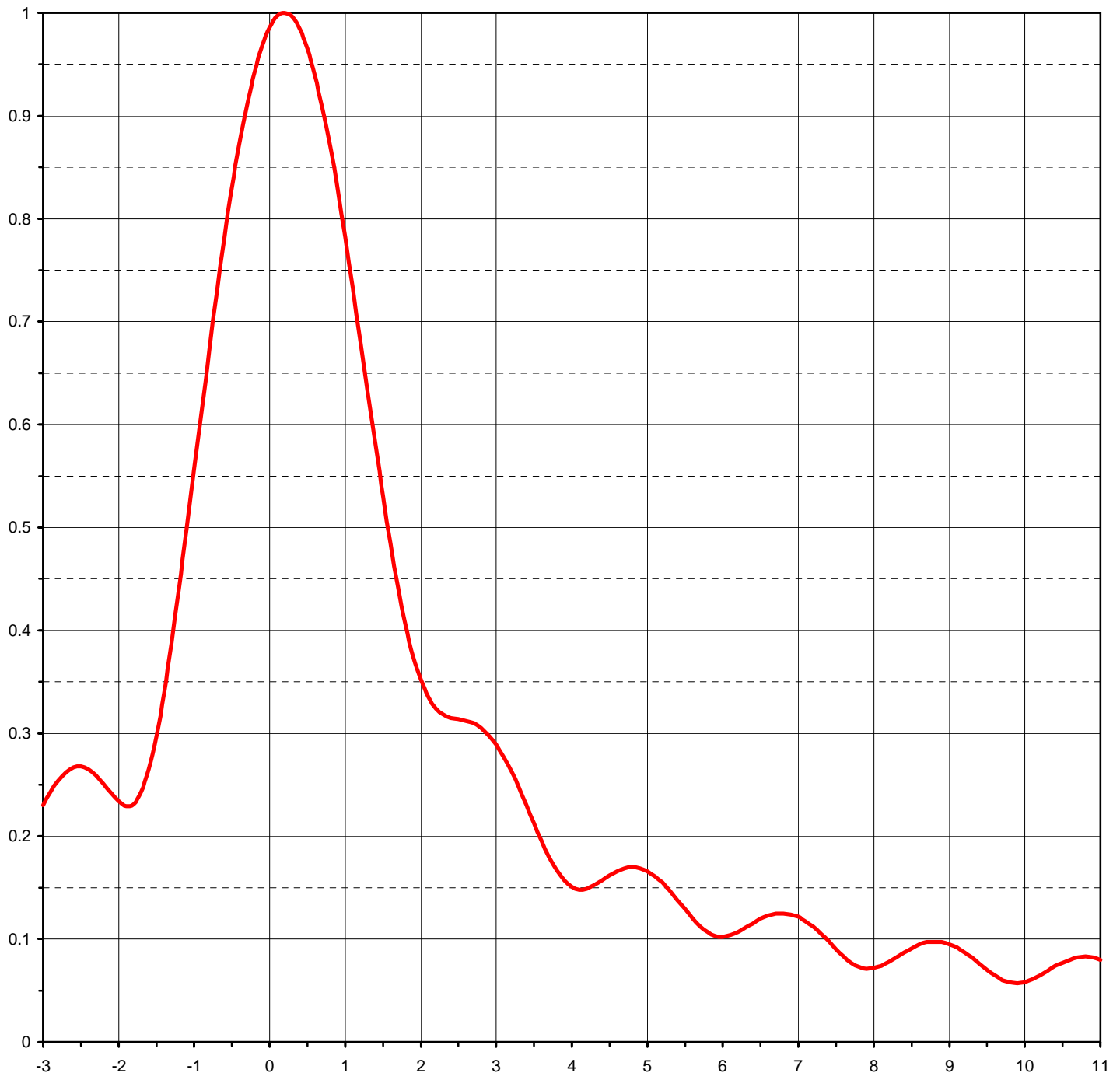
MANUFACTURER ' S
DIRECTIONAL
ANTENNA
SPECIFICATIONS



Proposal Number	DCA-10002	Revision:	4
Date	21-Mar-06		
Call Letters	KRSC-DT	Channel	36
Location	Claremore, OK		
Customer	Rogers State University		
Antenna Type	TFU-29ETT-R S220 DC		

ELEVATION PATTERN

RMS Gain at Main Lobe	25.00 (13.98 dB)	Beam Tilt	0.20 deg
RMS Gain at Horizontal	24.30 (13.86 dB)	Frequency	605.00 MHz
Calculated / Measured	Calculated	Drawing #	29E250020



Degrees Below Horizontal

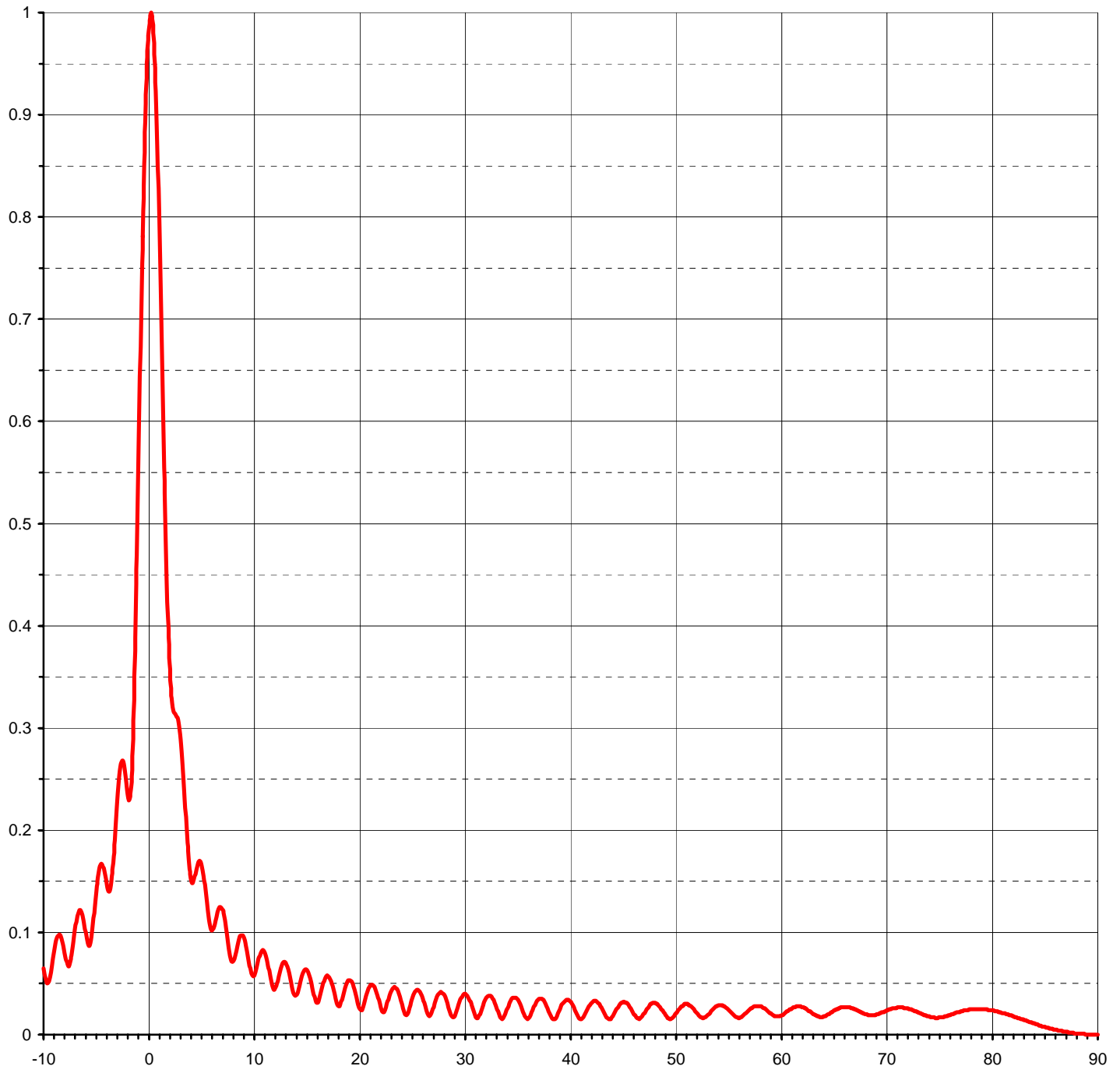


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ELEVATION PATTERN

RMS Gain at Main Lobe	25.00 (13.98 dB)
RMS Gain at Horizontal	24.30 (13.86 dB)
Calculated / Measured	Calculated

Beam Tilt	0.20 deg
Frequency	605.00 MHz
Drawing #	29E250020-90



Degrees Below Horizontal



Proposal Number **DCA-10002** Revision: **4**
 Date **21-Mar-06**
 Call Letters **KRSC-DT** Channel **36**
 Location **Claremore, OK**
 Customer **Rogers State University**
 Antenna Type **TFU-29ETT-R S220 DC**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing #: **29E250020-90**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
-10.0	0.065	2.4	0.315	10.6	0.077	30.5	0.034	51.0	0.030	71.5	0.027
-9.5	0.052	2.6	0.312	10.8	0.082	31.0	0.020	51.5	0.028	72.0	0.026
-9.0	0.081	2.8	0.305	11.0	0.082	31.5	0.020	52.0	0.022	72.5	0.024
-8.5	0.098	3.0	0.289	11.5	0.063	32.0	0.034	52.5	0.017	73.0	0.022
-8.0	0.080	3.2	0.263	12.0	0.044	32.5	0.038	53.0	0.018	73.5	0.019
-7.5	0.070	3.4	0.230	12.5	0.061	33.0	0.029	53.5	0.024	74.0	0.018
-7.0	0.104	3.6	0.196	13.0	0.071	33.5	0.016	54.0	0.028	74.5	0.017
-6.5	0.122	3.8	0.167	13.5	0.055	34.0	0.023	54.5	0.029	75.0	0.017
-6.0	0.100	4.0	0.151	14.0	0.038	34.5	0.035	55.0	0.025	75.5	0.018
-5.5	0.092	4.2	0.149	14.5	0.053	35.0	0.035	55.5	0.020	76.0	0.019
-5.0	0.140	4.4	0.157	15.0	0.064	35.5	0.025	56.0	0.016	76.5	0.021
-4.5	0.167	4.6	0.166	15.5	0.051	36.0	0.015	56.5	0.019	77.0	0.023
-4.0	0.147	4.8	0.170	16.0	0.031	36.5	0.024	57.0	0.024	77.5	0.024
-3.5	0.155	5.0	0.166	16.5	0.045	37.0	0.034	57.5	0.028	78.0	0.025
-3.0	0.230	5.2	0.155	17.0	0.058	37.5	0.034	58.0	0.028	78.5	0.025
-2.8	0.254	5.4	0.138	17.5	0.048	38.0	0.023	58.5	0.026	79.0	0.025
-2.6	0.267	5.6	0.120	18.0	0.029	38.5	0.015	59.0	0.021	79.5	0.025
-2.4	0.265	5.8	0.107	18.5	0.038	39.0	0.023	59.5	0.018	80.0	0.024
-2.2	0.251	6.0	0.102	19.0	0.053	39.5	0.032	60.0	0.018	80.5	0.023
-2.0	0.234	6.2	0.107	19.5	0.047	40.0	0.033	60.5	0.022	81.0	0.021
-1.8	0.231	6.4	0.115	20.0	0.028	40.5	0.024	61.0	0.025	81.5	0.020
-1.6	0.265	6.6	0.123	20.5	0.030	41.0	0.015	61.5	0.028	82.0	0.018
-1.4	0.339	6.8	0.125	21.0	0.047	41.5	0.021	62.0	0.027	82.5	0.016
-1.2	0.441	7.0	0.122	21.5	0.047	42.0	0.030	62.5	0.025	83.0	0.014
-1.0	0.556	7.2	0.112	22.0	0.030	42.5	0.033	63.0	0.021	83.5	0.012
-0.8	0.673	7.4	0.098	22.5	0.024	43.0	0.027	63.5	0.018	84.0	0.011
-0.6	0.781	7.6	0.083	23.0	0.041	43.5	0.017	64.0	0.017	84.5	0.009
-0.4	0.873	7.8	0.073	23.5	0.046	44.0	0.017	64.5	0.020	85.0	0.008
-0.2	0.943	8.0	0.072	24.0	0.033	44.5	0.026	65.0	0.024	85.5	0.006
0.0	0.986	8.2	0.078	24.5	0.019	45.0	0.031	65.5	0.026	86.0	0.005
0.2	1.000	8.4	0.087	25.0	0.033	45.5	0.030	66.0	0.027	86.5	0.004
0.4	0.984	8.6	0.095	25.5	0.044	46.0	0.022	66.5	0.027	87.0	0.003
0.6	0.939	8.8	0.097	26.0	0.038	46.5	0.016	67.0	0.025	87.5	0.002
0.8	0.870	9.0	0.095	26.5	0.021	47.0	0.020	67.5	0.022	88.0	0.001
1.0	0.782	9.2	0.087	27.0	0.024	47.5	0.027	68.0	0.020	88.5	0.001
1.2	0.682	9.4	0.076	27.5	0.039	48.0	0.031	68.5	0.019	89.0	0.000
1.4	0.580	9.6	0.065	28.0	0.040	48.5	0.028	69.0	0.020	89.5	0.000
1.6	0.484	9.8	0.060	28.5	0.027	49.0	0.021	69.5	0.022	90.0	0.000
1.8	0.405	10.0	0.057	29.0	0.017	49.5	0.015	70.0	0.024		
2.0	0.352	10.2	0.061	29.5	0.030	50.0	0.020	70.5	0.026		
2.2	0.324	10.4	0.069	30.0	0.040	50.5	0.026	71.0	0.027		

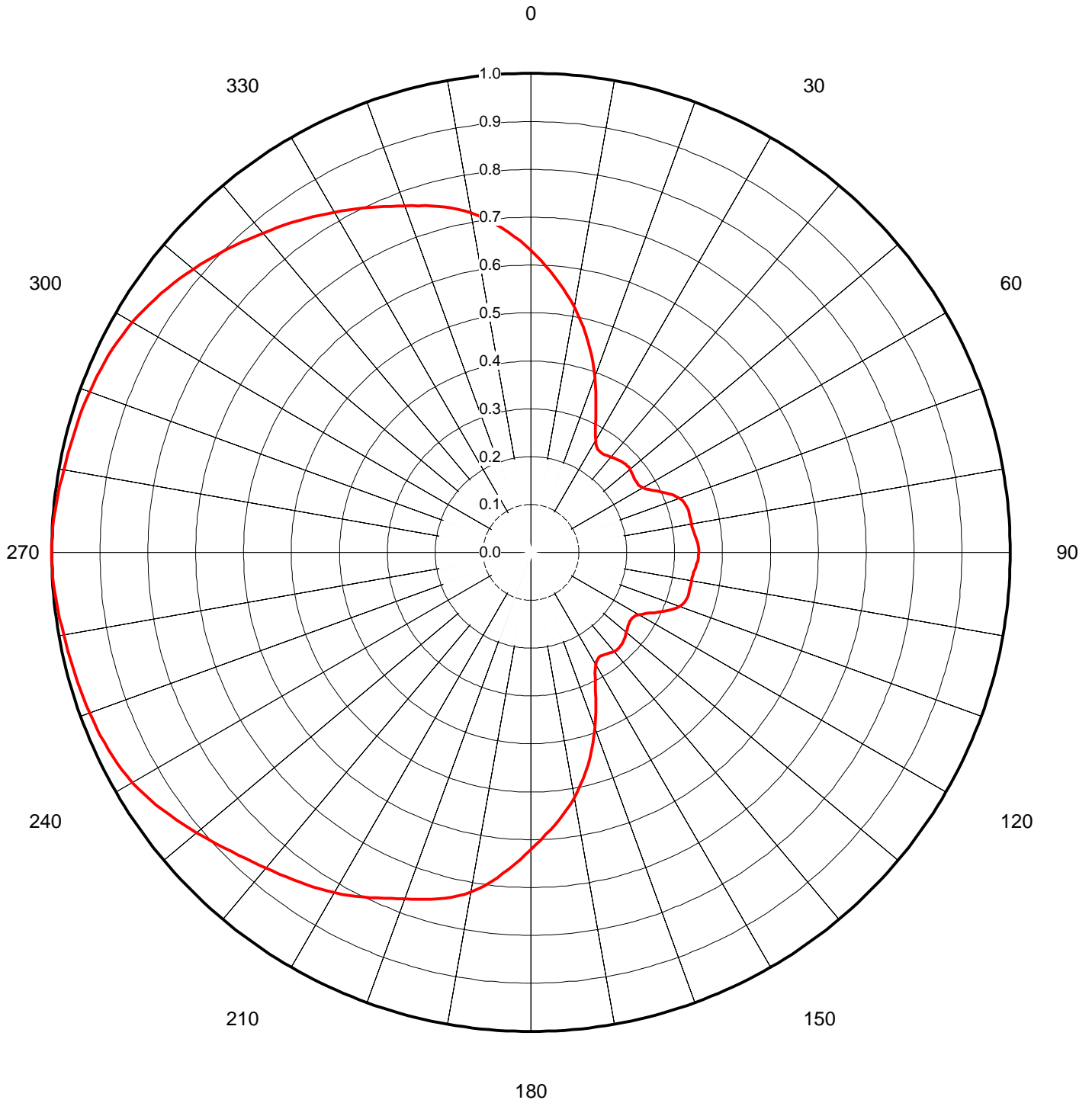


Proposal Number	DCA-10002	Revision:	4
Date	21-Mar-06		
Call Letters	KRSC-DT	Channel	36
Location	Claremore, OK		
Customer	Rogers State University		
Antenna Type	TFU-29ETT-R S220 DC		

AZIMUTH PATTERN

Gain **2.20** **(3.42 dB)**
Calculated / Measured **Calculated**

Frequency **605.00 MHz**
Drawing # **TFU-3S220-36**





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Customer	Rogers State University		
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TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing #: **TFU-3S220-36**

Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field	Angle	Field
0	0.630	45	0.268	90	0.350	135	0.269	180	0.620	225	0.883	270	1.000	315	0.895
1	0.619	46	0.269	91	0.350	136	0.270	181	0.631	226	0.888	271	1.000	316	0.890
2	0.609	47	0.270	92	0.349	137	0.271	182	0.641	227	0.894	272	0.999	317	0.885
3	0.598	48	0.270	93	0.348	138	0.271	183	0.652	228	0.899	273	0.999	318	0.880
4	0.587	49	0.270	94	0.347	139	0.271	184	0.663	229	0.905	274	0.998	319	0.875
5	0.576	50	0.270	95	0.345	140	0.270	185	0.674	230	0.910	275	0.997	320	0.870
6	0.566	51	0.269	96	0.344	141	0.269	186	0.684	231	0.916	276	0.995	321	0.865
7	0.554	52	0.268	97	0.343	142	0.267	187	0.694	232	0.921	277	0.994	322	0.860
8	0.543	53	0.267	98	0.341	143	0.265	188	0.703	233	0.927	278	0.993	323	0.855
9	0.532	54	0.266	99	0.340	144	0.263	189	0.712	234	0.932	279	0.991	324	0.850
10	0.520	55	0.265	100	0.340	145	0.261	190	0.720	235	0.937	280	0.990	325	0.845
11	0.508	56	0.264	101	0.340	146	0.261	191	0.727	236	0.942	281	0.989	326	0.840
12	0.496	57	0.264	102	0.340	147	0.261	192	0.733	237	0.947	282	0.988	327	0.835
13	0.483	58	0.265	103	0.340	148	0.262	193	0.739	238	0.952	283	0.987	328	0.830
14	0.471	59	0.267	104	0.341	149	0.265	194	0.744	239	0.956	284	0.986	329	0.825
15	0.458	60	0.270	105	0.341	150	0.270	195	0.749	240	0.960	285	0.985	330	0.820
16	0.445	61	0.274	106	0.340	151	0.277	196	0.753	241	0.963	286	0.984	331	0.815
17	0.431	62	0.280	107	0.339	152	0.285	197	0.757	242	0.966	287	0.983	332	0.810
18	0.418	63	0.286	108	0.337	153	0.295	198	0.762	243	0.969	288	0.982	333	0.804
19	0.404	64	0.292	109	0.334	154	0.306	199	0.766	244	0.971	289	0.981	334	0.799
20	0.390	65	0.299	110	0.330	155	0.319	200	0.770	245	0.973	290	0.980	335	0.794
21	0.376	66	0.306	111	0.325	156	0.332	201	0.775	246	0.975	291	0.979	336	0.789
22	0.362	67	0.313	112	0.318	157	0.346	202	0.780	247	0.976	292	0.977	337	0.784
23	0.347	68	0.319	113	0.311	158	0.361	203	0.785	248	0.978	293	0.976	338	0.779
24	0.334	69	0.325	114	0.303	159	0.375	204	0.790	249	0.979	294	0.974	339	0.775
25	0.321	70	0.330	115	0.295	160	0.390	205	0.795	250	0.980	295	0.972	340	0.770
26	0.308	71	0.334	116	0.287	161	0.405	206	0.800	251	0.981	296	0.970	341	0.766
27	0.297	72	0.336	117	0.279	162	0.419	207	0.805	252	0.982	297	0.968	342	0.761
28	0.287	73	0.338	118	0.272	163	0.433	208	0.810	253	0.983	298	0.966	343	0.757
29	0.278	74	0.339	119	0.265	164	0.446	209	0.815	254	0.984	299	0.963	344	0.752
30	0.270	75	0.340	120	0.260	165	0.460	210	0.820	255	0.985	300	0.960	345	0.748
31	0.264	76	0.340	121	0.256	166	0.472	211	0.824	256	0.986	301	0.957	346	0.743
32	0.260	77	0.340	122	0.253	167	0.485	212	0.829	257	0.987	302	0.953	347	0.738
33	0.257	78	0.340	123	0.252	168	0.497	213	0.833	258	0.988	303	0.950	348	0.732
34	0.255	79	0.340	124	0.251	169	0.509	214	0.837	259	0.989	304	0.946	349	0.726
35	0.254	80	0.340	125	0.252	170	0.520	215	0.840	260	0.990	305	0.942	350	0.720
36	0.255	81	0.341	126	0.252	171	0.531	216	0.844	261	0.991	306	0.938	351	0.713
37	0.255	82	0.342	127	0.254	172	0.541	217	0.848	262	0.993	307	0.934	352	0.705
38	0.257	83	0.343	128	0.256	173	0.551	218	0.852	263	0.994	308	0.929	353	0.697
39	0.258	84	0.344	129	0.258	174	0.561	219	0.856	264	0.995	309	0.925	354	0.688
40	0.260	85	0.346	130	0.260	175	0.571	220	0.860	265	0.997	310	0.920	355	0.679
41	0.262	86	0.347	131	0.262	176	0.581	221	0.864	266	0.998	311	0.915	356	0.670
42	0.264	87	0.348	132	0.264	177	0.590	222	0.869	267	0.999	312	0.910	357	0.660
43	0.265	88	0.349	133	0.266	178	0.600	223	0.873	268	0.999	313	0.905	358	0.650
44	0.267	89	0.350	134	0.268	179	0.610	224	0.878	269	1.000	314	0.900	359	0.640

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APPLICATION FOR MODIFICATION OF
DTV CONSTRUCTION PERMIT
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CH 36 144 KW (MAX-DA) 455 M

Summary of Allocation Analysis

Facility	Channel	NTSC or DTV?	Baseline Service Population (1990)	Permissible IX(%)	Net New IX Caused by Proposed (1990)	Percent of Baseline (%)
KRSC-TV Claremore, OK BPET-20021118ABV	35	NTSC	No Interference Predicted			
KRSC-TV Claremore, OK BLET-19920306KE	35	NTSC	No Interference Predicted			
KKAP(TV) Little Rock, AR BLET-20010514ABD	36	NTSC	No Interference Predicted			
KSCC(TV) Hutchinson, KS BLCT-20010116AHT	36	NTSC	611,042	2.0	33	<0.1
KMCI-DT Lawrence, KS BLCDT-20030808AAO	36	DTV	No Interference Predicted			
KMCI-DT Lawrence, KS DTV Allotment	36	DTV	No Interference Predicted			
KOMU-DT Columbia, MO BLCDT-20020701ABI	36	DTV	No Interference Predicted			
KOMU-DT Columbia, MO DTV Allotment	36	DTV	No Interference Predicted			

Facility	Channel	NTSC or DTV?	Baseline Service Population (1990)	Permissible IX(%)	Net New IX Caused by Proposed (1990)	Percent of Baseline (%)
<i>New NTSC Jefferson City, MO BLET-19960920UYX</i>	36	NTSC	<i>No Interference Predicted</i>			
<i>KTPX(TV) Okmulgee, OK BLCT-19970630KF</i>	44	NTSC	822,699	2.0	62	<0.1

Note: 2 km grid square employed for analysis.