

TECHNICAL EXHIBIT
MINOR MODIFICATION OF CONSTRUCTION PERMIT
LPTV STATION K17DL (FACILITY ID 23969)
BRANSON, MISSOURI
CH 17(-) 20.5 KW (MAX-DA)

Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of a minor modification of construction permit for low power television station K17DL at Branson, Missouri (BMPTTL-19980901JC).

Proposed Facilities

It is proposed to relocate the transmitter site to 36-44-52 N, 93-16-37 W (NAD 27). Station K17DL proposes to use a Dielectric TLP16-M directional antenna on a 152 meter (500 foot) tower (FCC tower registration no. 1060435). The proposed maximum visual ERP is 20.5 kW and the antenna RCAMSL is 557 meters. There will be no change in channel or community of license.

The coverage map on Figure 1 shows the 74 dBu contours for the previous K17DL CP (BMPTTL-19960502JF) and the current CP (BMPTTL-19980901JC) as well as the proposed K17DL operation. Since there is common overlap area with all three contours, this application can be considered a minor change with respect to both authorizations.

NTSC Allocation Considerations

A study has been conducted using the provisions of Sections 74.705, 74.707 and 74.709 to assure that the proposal will not create prohibited interference with other authorized or pending NTSC full-power and LPTV stations. No prohibited interference to any NTSC stations will be created by the proposed operation.

DTV Allocation Considerations

Pertinent DTV allotments and assignments on channels 16, 17 and 18 have been examined using the procedures outlined in the FCC's OET-69 bulletin.¹ No interference is predicted to be caused to any DTV station or allotment. Figure 2 is a detailed computer output of the OET-69 program showing no interference to any DTV stations or allotments.

The applicant recognizes the proposal is secondary to authorized full-service analog and DTV operations. The applicant understands that it must correct and/or eliminate prohibited interference that may result from its proposed operation. If necessary, a waiver of the FCC rules is respectfully requested based on no prohibitive interference being caused to pertinent DTV assignments using the procedures outlined in the FCC's OET-69 Bulletin.

Radiofrequency Electromagnetic Field Exposure

The proposed K17DL facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. A maximum visual ERP of 20.5 kW with 22% aural power was assumed. A conservative

¹ The duTreil, Lundin & Rackley, Inc. DTV interference analysis program is based on the program and procedures outlined by the FCC in the Sixth Report and Order; subsequent Memorandum Opinion and Order; and FCC OET Bulletin No. 69. A nominal grid size resolution of 1 km was employed. An Alpha based processor computer system was employed. The results have been found to be in very close agreement with the results of the FCC implementation of OET Bulletin No. 69.

relative field value of 0.2 was assumed for the Dielectric 16-bay antenna's downward radiation (see Figure 3). The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.0008 mW/cm². This is less than 1% of the FCC's recommended limit of 0.33 mW/cm² for channel 17 for an "uncontrolled" environment.

Access to the transmitting site will be restricted and appropriately marked with warning signs. As this will be 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. The proposed K17DL operation appears to be otherwise categorically excluded from environmental processing.

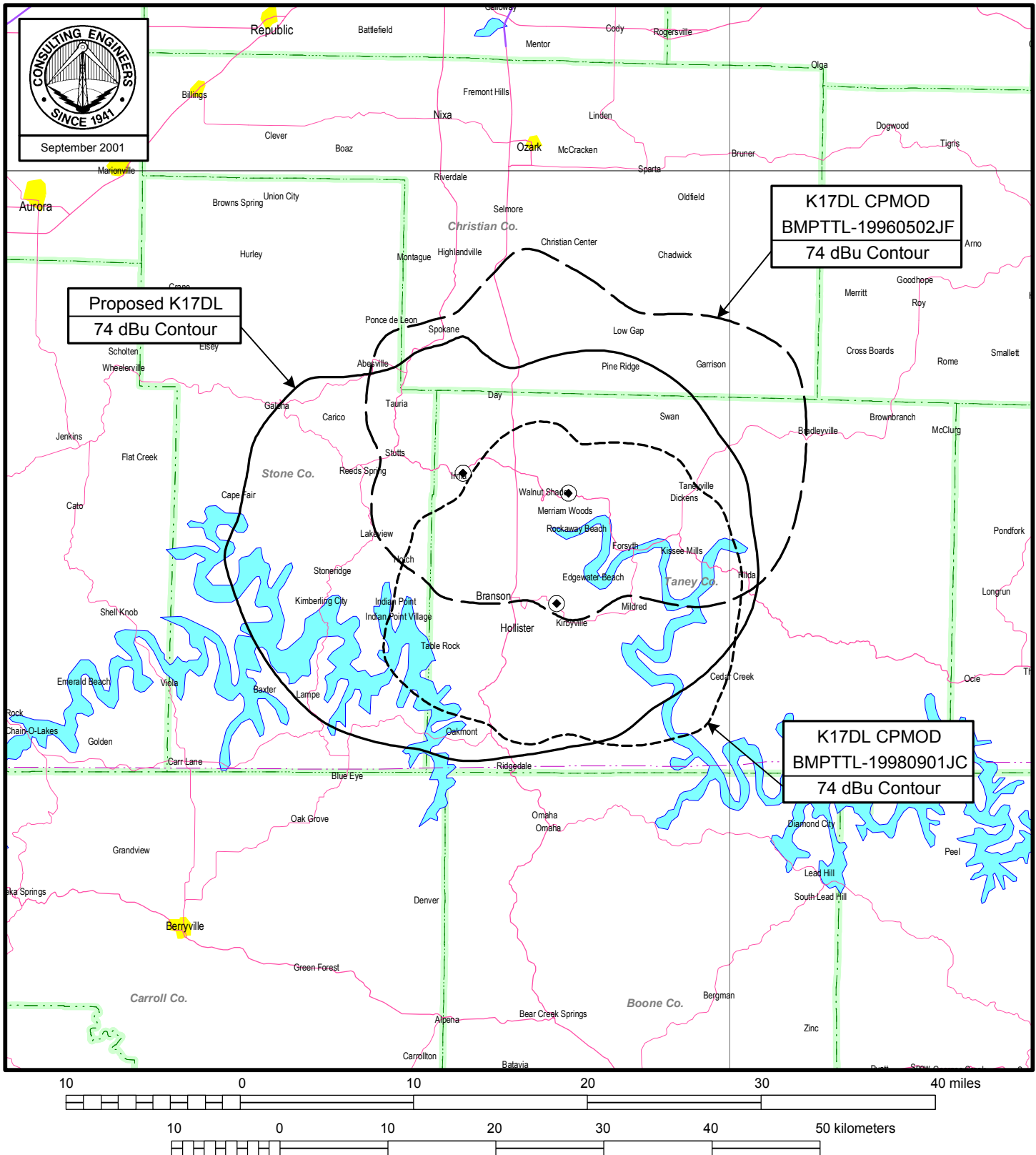
In addition, it appears that the existing structure is otherwise excluded from environmental processing as it complies with all the criteria for such an exclusion in Section 1.1306.

Jonathan N. Edwards

du Treil, Lundin & Rackley, Inc.
201 Fletcher Avenue
Sarasota, Florida 34237

September 5, 2001

Figure 1



PREDICTED F(50,50) COVERAGE CONTOURS

STATION K17DL

BRANSON, MISSOURI

CH 17 20.5 KW (MAX-DA)

du Treil, Lundin & Rackley, Inc Sarasota, Florida

INTERFERENCE CAUSED BY K17DL
 CELL SIZE : 1.00
 Using offset in determining thresholds
 Per 6th Report & Order and FCC OET-69 Bulletin

DWTCT 37-33-26 89-01-24 17(0) 61.5 kw-DA 398 m AMSL 90.0 % 39.0 dBu
 MARION IL 13712 366 DTVSERVICE: 366000 NTSCSERVICE: 363000
 DTVALT DTV ALLOTMENT
 0.66 0.61 0.53 0.41 0.29 0.20 0.18 0.23 0.30 0.32 0.30 0.23
 0.18 0.19 0.28 0.41 0.53 0.61 0.67 0.71 0.74 0.79 0.86 0.90
 0.95 0.98 1.00 0.99 0.99 0.97 0.94 0.89 0.82 0.78 0.73 0.69

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	13949.48	368550
not affected by terrain losses	13852.31	366806

K17DL 36-44-52 93-16-37 17(-) 20.5 kw-DA 557 m AMSL 10.0 % 72.0
 BRANSON MO

0.90 0.91 0.92 0.95 0.98 1.00 0.98 0.92 0.85 0.76 0.67 0.57
 0.48 0.37 0.26 0.19 0.19 0.23 0.26 0.21 0.18 0.21 0.30 0.41
 0.52 0.62 0.71 0.80 0.89 0.96 0.99 1.00 0.97 0.94 0.92 0.90
 (51.0 1.00) (155.0 0.18) (203.0 0.18) (306.0 1.00)

Ref Az: 180.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
Interference	0	0

WTCT-DT 37-33-26 89-01-24 17(N) 800.0 kw 378 m AMSL 90.0 % 39.0 dBu
 MARION IL 13712 366 DTVSERVICE: 366000 NTSCSERVICE: 363000
 CP BPCDT19990803LH

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	23704.92	558469
not affected by terrain losses	23594.84	554752

K17DL 36-44-52 93-16-37 17(-) 20.5 kw-DA 557 m AMSL 10.0 % 72.0
 BRANSON MO

0.90 0.91 0.92 0.95 0.98 1.00 0.98 0.92 0.85 0.76 0.67 0.57
 0.48 0.37 0.26 0.19 0.19 0.23 0.26 0.21 0.18 0.21 0.30 0.41
 0.52 0.62 0.71 0.80 0.89 0.96 0.99 1.00 0.97 0.94 0.92 0.90
 (51.0 1.00) (155.0 0.18) (203.0 0.18) (306.0 1.00)

Ref Az: 180.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
Interference	0	0

WXVT-DT 33-39-26 90-42-18 17(N) 380.0 kw 304.6 m AMSL 90.0 % 39.0 dBu
GREENVILLE MS 15891 259 DTVSERVICE: 259000 NTSCSERVICE: 259000
CP BPCDT19991019ABP

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	23586.41	331179
not affected by terrain losses	23577.50	330726

K17DL 36-44-52 93-16-37 17(-) 20.5 kw-DA 557 m AMSL 10.0 % 72.0
BRANSON MO

0.90	0.91	0.92	0.95	0.98	1.00	0.98	0.92	0.85	0.76	0.67	0.57
0.48	0.37	0.26	0.19	0.19	0.23	0.26	0.21	0.18	0.21	0.30	0.41
0.52	0.62	0.71	0.80	0.89	0.96	0.99	1.00	0.97	0.94	0.92	0.90
(51.0 1.00) (155.0 0.18) (203.0 0.18) (306.0 1.00)											

Ref Az: 180.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
Interference	0	0

DWXVT 33-39-26 90-42-18 17(0) 103.3 kw-DA 310 m AMSL 90.0 % 39.0 dBu
GREENVILLE MS 15891 259 DTVSERVICE: 259000 NTSCSERVICE: 259000
DTVALT DTV ALLOTMENT

1.00	0.94	0.82	0.65	0.45	0.34	0.31	0.28	0.34	0.45	0.59	0.68
0.71	0.69	0.60	0.47	0.34	0.27	0.28	0.27	0.34	0.46	0.59	0.68
0.71	0.69	0.59	0.47	0.34	0.30	0.32	0.33	0.44	0.65	0.82	0.95

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	15868.60	258669
not affected by terrain losses	15866.62	258669

K17DL 36-44-52 93-16-37 17(-) 20.5 kw-DA 557 m AMSL 10.0 % 72.0
BRANSON MO

0.90	0.91	0.92	0.95	0.98	1.00	0.98	0.92	0.85	0.76	0.67	0.57
0.48	0.37	0.26	0.19	0.19	0.23	0.26	0.21	0.18	0.21	0.30	0.41
0.52	0.62	0.71	0.80	0.89	0.96	0.99	1.00	0.97	0.94	0.92	0.90
(51.0 1.00) (155.0 0.18) (203.0 0.18) (306.0 1.00)											

Ref Az: 180.0

Using DEFAULT vertical antenna pattern

D/U Baseline: 2.00

	Area	Pop
Interference	0	0

KFSM-DT 35-30-43 094-21-38 18(N) 275.000 kw 599 m 90.0 % 39.1 dBu
FORT SMITH AR 32049 616 DTVSERVICE: 616000 NTSCSERVICE: 536000
CP BPCDT19990920AAJ

Using DEFAULT vertical antenna pattern

	Area	Pop
within Noise Limited Contour	29877.39	565945
not affected by terrain losses	26740.98	534186

K17DL 36-44-52 93-16-37 17(-) 20.5 kw-DA 557 m AMSL 10.0 % 72.0
BRANSON MO

0.90	0.91	0.92	0.95	0.98	1.00	0.98	0.92	0.85	0.76	0.67	0.57
0.48	0.37	0.26	0.19	0.19	0.23	0.26	0.21	0.18	0.21	0.30	0.41
0.52	0.62	0.71	0.80	0.89	0.96	0.99	1.00	0.97	0.94	0.92	0.90
(51.0 1.00) (155.0 0.18) (203.0 0.18) (306.0 1.00)											

Ref Az: 180.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

	Area	Pop
Interference	0	0

DKFSMTV 35-30-43 94-21-38 18(0) 1000.0 kw-DA 592 m AMSL 90.0 % 39.1 dBu
FORT SMITH AR 32049 616 DTVSERVICE: 616000 NTSCSERVICE: 536000
DTVALT DTV ALLOTMENT

0.97	0.98	0.98	0.99	1.00	0.99	0.96	0.93	0.91	0.89	0.88	0.88
0.88	0.88	0.88	0.88	0.88	0.89	0.89	0.89	0.89	0.89	0.89	0.89
0.88	0.88	0.88	0.89	0.90	0.90	0.91	0.92	0.93	0.94	0.95	0.96
(46.0 1.00)											

Ref Az: 0.0

Using DEFAULT vertical antenna pattern

USING NTSC GRADE B FOR SERVICE AREA

	Area	Pop
within Noise Limited Contour	38352.14	698152
not affected by terrain losses	32574.12	636403

K17DL 36-44-52 93-16-37 17(-) 20.5 kw-DA 557 m AMSL 10.0 % 72.0
BRANSON MO

0.90	0.91	0.92	0.95	0.98	1.00	0.98	0.92	0.85	0.76	0.67	0.57
0.48	0.37	0.26	0.19	0.19	0.23	0.26	0.21	0.18	0.21	0.30	0.41
0.52	0.62	0.71	0.80	0.89	0.96	0.99	1.00	0.97	0.94	0.92	0.90
(51.0 1.00) (155.0 0.18) (203.0 0.18) (306.0 1.00)											

Ref Az: 180.0

Using DEFAULT vertical antenna pattern

D/U Baseline: -48.00

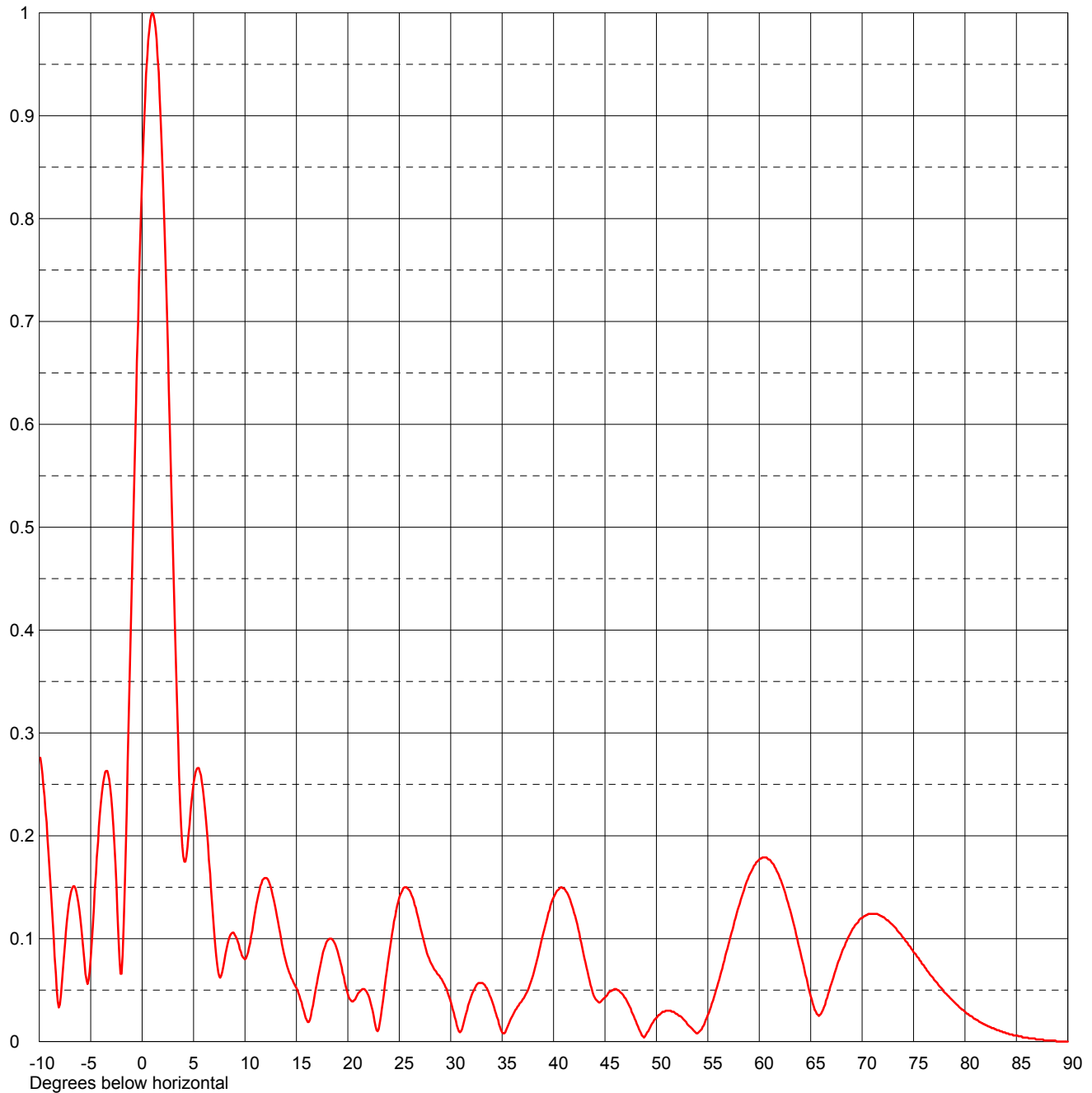
	Area	Pop
Interference	0	0

Antenna Type

TLP-16M (C)

ELEVATION PATTERN

RMS Gain at Main Lobe	16.0 (12.04 dB)	Beam Tilt	1.00 Degrees
RMS Gain at Horizontal	11.3 (10.53 dB)	Frequency	491.00 MHz
Calculated / Measured	Calculated	Drawing #	16L160100-90



Remarks: