

ENGINEERING STATEMENT
RE DTV BROADCAST ENGINEERING DATA
APPLICATION FOR CONSTRUCTION PERMIT
BASED ON PETITION FOR RULE MAKING
FOR MODIFICATION OF DIGITAL ALLOTMENT
ON BEHALF OF
KRTV COMMUNICATIONS, INC.
KRTV-DT, GREAT FALLS, MONTANA
CHANNEL 7 160 KW ERP MAX DA 180 METERS

JULY 2003

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CONSULTING ENGINEERS
RADIO AND TELEVISION
WASHINGTON, D.C.

Introduction

This engineering statement has been prepared on behalf of KRTV Communications, Inc., licensee of KRTV(TV). The purpose of this engineering statement is to accompany the KRTV-DT application for construction permit based on Report and Order, 18 FCC Rcd 6339 (2003), granting the substitution of DTV Channel 7 for station KRTV(TV)'s assigned DTV Channel 44. Effective May 27, 2003, the DTV Table of Allotments, Section 73.622(b) of the Commission's Rules was amended with respect to the community of Great Falls. Included with this report are the exhibits referenced in this text along with FCC Form 301, Section III-D.

KRTV Communications, Inc. operates Station KRTV(TV) on NTSC television Channel 3 with a maximum visual effective radiated power (ERP) of 100 kW (horizontal polarization) and an antenna height above average terrain (HAAT) of 180 meters (590.6 feet). KRTV(TV) was allotted DTV Channel 44 with facilities of 1000 kW and an HAAT of 180 meters in the revised DTV Table of Allotments.¹ KRTV(TV) has been authorized in Report and Order, MM Docket No. 00-246 (RM-9859) to substitute DTV Channel 7 in place of DTV Channel 44.

KRTV(TV) Tower

The DTV antenna will be top-mounted on an existing tower having a total overall structure height above ground of 169.8 meters (557.1 feet). See Exhibit E-1. The existing transmitter site is located 1.0 mile north of Highway 87, Great Falls, Montana. The tower has been registered under the number 1000138.

¹"In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service", MM Docket No. 87-286, Memorandum Opinion and Order on Reconsideration of the Sixth Report and Order. (FCC 98-24), 2/12/98, DTV Table of Allotments.

North Latitude: 47° 32' 09"

West Longitude: 111° 17' 02"

NAD-27

Equipment Data

A Dielectric, Type THV-6A7-R C140 (or equivalent) antenna, with a directional max power gain of 8.4 (9.24 dB) and 0.5° electrical beam tilt will be installed. The horizontal/vertical plane patterns and other exhibits required by Section 73.625(c) are attached as Exhibits E-2(a-c).

Elevation Data

(Existing Tower; No Change in Overall Height)

| | |
|---|--------------------------------|
| Elevation of site above mean sea level | 1079.9 meters (3543.0 feet) |
| Overall height above ground of the existing antenna structure (including beacon) | 169.8 meters (557.1 feet) |
| Overall height above mean sea level of existing tower (including beacon) | 1249.7 meters (4100.1 feet) |
| Center of radiation of Channel 7 antenna above ground | 155.1 meters (508.9 feet) |
| Center of radiation of Channel 7 antenna above mean sea level | 1235 meters (4051.8 feet) |
| Antenna height above average terrain | 180 meters |

Note: Slight height differences result due to conversion to metric.

Topographic Data

The average elevation data of each radial separated every 10 degrees in azimuth from 3.2 to 16.1 kilometers, are based on the NGDC 3-second computerized terrain database.

Allocation

An allocation study from the proposed site has not been performed since the proposed DTV facilities will radiate the equivalent effective radiated power in every direction as the effective radiated power authorized for the KRTV-DT facilities in the Report and Order, MM Docket No. 00-246 (RM-9859).

Interference Analysis

A study of predicted interference caused by the proposed Channel 7 DTV service was performed using a version of the Longley-Rice program as described in OET Bulletin No. 69 (July 2, 1997) and the Public Notice, "Additional Application Processing Guidelines for Digital Television (DTV)" (August 1998). The study was submitted in the FCC preceding MM Docket No. 00-246 (RM-9859), proposing substitution of DTV channel 7 for KRTV(TV)'s assigned DTV channel 44.

Coverage

A coverage map (Exhibit E-3) is provided showing the 43 dBu and 36 dBu contours. The proposed facilities of KRTV-DT place a predicted 43 dBu contour over the community of Great Falls.

Other Licensed and Broadcast Facilities

There are no AM stations within 3.22 km of the existing KRTV-DT tower site. There are numerous TV and FM broadcast stations operating within 300 meters of the existing site.

No adverse technical effect is anticipated by the proposed DTV operation to any other FCC licensed facility. If required, the licensee of KRTV-DT will install filters or take other measures as necessary to resolve the problem.

Radio Frequency Field Level

The DTV antenna will be top-mounted on the existing tower at 142.8 meters above ground level. The RFF contribution of each broadcasting station operation from the transmitting site will be calculated using the following formula:

$$S = \frac{33.4(F^2) [0.4 \text{ ERP}_V + \text{ERP}_A]}{R^2}$$

where:

S = power density in $\mu\text{W}/\text{cm}^2$
F = relative field factor
 ERP_V = total peak visual ERP in watts
 ERP_A = total peak aural ERP in watts
R = RCAGL - 2 meters

Radio Frequency Field Level Calculations

| <u>Station</u> | <u>Channel</u> | <u>ERP</u> kW | <u>Field</u> | <u>RCAGL*</u> (meters) | <u>S-Calculated</u> $\mu\text{W}/\text{cm}^2$ | <u>S-Limit</u> $\mu\text{W}_2/\text{cm}$ | <u>% of Limit**</u> |
|------------------------|----------------|------------------|--------------|---------------------------|--|---|---------------------|
| KFBB-TV (existing) | 5 | 100 | 0.2 | 136.9 | 3.57 | 200 | 1.78 |
| KFBB-DT (existing) | 8 | 3.39 | 0.1 | 119.9 | 0.08 | 200 | 0.04 |
| KRTV(TV) (existing) | 3 | 100 | 0.2 | 153.6 | 2.83 | 200 | 1.42 |
| KRTV-DT (proposed) | 7 | 160 | 0.1 | 153.6 | 2.27 | 200 | 1.13 |

*RCAGL Minus 2 meters

**Maximum Exposure Limit for an Uncontrolled Environment

Total RFF at the Site

The total RFF contribution of all transmitters can now be calculated:

Total RFF =

$$3.57 \mu\text{W}/\text{cm}^2 \text{ (KFBB-TV)} + 0.08 \text{ (KFBB-DT)} + 2.83 \text{ (KRTV(TV))} + 2.27 \text{ (KRTV-DT)}$$

$$\text{Total RFF} = 1.78\% + 0.04\% \quad \text{Total RFF} = 4.37\%$$

Therefore, all facilities contribute only 4.3% RFF for an uncontrolled environment

2 meters above the ground at the tower site.

The tower site is located inside a chain link fence with a locked gate to prevent unauthorized access to the tower.

Finally, provisions will be made to reduce power or to terminate the transmitter emissions as appropriate when it is necessary for authorized personnel to climb the tower. All

facilities operating on the tower will coordinate to ensure that workers will not be subjected to radio frequency levels in excess of the current FCC guidelines listed in OET Bulletin No. 65, dated August 1997.

Environmental Assessment

An environmental assessment ("EA") is categorically excluded under Section 1.1306 of the FCC Rules and Regulations since the permittee indicates:

- (a)(1) The existing tower is not located in an officially designated wilderness area.
- (a)(2) The existing tower is not located in an officially designated wildlife preserve.
- (a)(3) The proposed facilities will not affect any listed threatened or endangered species or habitats.
- (a)(3)(ii) The proposed facilities will not jeopardize the continued existence of any proposed endangered or threatened species or likely to result in the destruction or adverse modification of proposed critical habitats.
- (a)(4) The proposed facilities will not affect any known districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering, or culture.
- (a)(5) The existing tower is not located near any known Indian religious sites.
- (a)(6) The existing tower is not located in a flood plain.
- (a)(7) The installation of the DTV facilities on an existing guyed tower will not involve a significant change in surface features of the ground in the vicinity of the tower.
- (a)(8) It is not proposed to equip the tower with high intensity white lights unless required by the FAA.
- (b) Workers and the general public will not be subjected to RFF levels in excess of the current FCC guidelines contained in OET Bulletin No. 65, August 1997 edition.

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
KRTV-DT, GREAT FALLS, MONTANA
CHANNEL 7 160 KW ERP 180 METERS HAAT
JULY 2003

| <u>Radial</u> N ° E, T | <u>Effective</u> <u>Height</u> meters | <u>Average</u> <u>Elevation</u> meters | <u>ERP</u> kW | <u>Distance to Contour</u> | |
|---------------------------|---|--|------------------|----------------------------|---------------------|
| | | | | <u>43 dBu</u> km | <u>36 dBu</u> km |
| 0 | 126.8 | 1108.2 | 48.4 | 78.3 | 90.1 |
| 10 | 139.5 | 1095.5 | 54.9 | 81.3 | 93.0 |
| 20 | 151.0 | 1084.0 | 64.7 | 84.0 | 95.4 |
| 30 | 172.3 | 1062.7 | 77.7 | 87.4 | 98.8 |
| 40 | 186.0 | 1049.0 | 93.1 | 89.8 | 101.7 |
| 50 | 213.1 | 1021.9 | 109.7 | 93.4 | 106.2 |
| 60 | 214.1 | 1020.9 | 125.3 | 94.5 | 107.4 |
| 70 | 229.4 | 1005.6 | 138.7 | 96.5 | 109.6 |
| 80 | 232.4 | 1002.6 | 148.7 | 97.3 | 110.4 |
| 90 | 215.2 | 1019.8 | 155.2 | 96.2 | 109.4 |
| 100 | 198.7 | 1036.3 | 158.4 | 94.8 | 108.0 |
| 110 | 191.7 | 1043.3 | 160.0 | 94.2 | 107.3 |
| 120 | 186.2 | 1048.8 | 160.0 | 93.7 | 106.7 |
| 130 | 183.2 | 1051.8 | 159.7 | 93.4 | 106.3 |
| 140 | 189.2 | 1045.8 | 159.0 | 93.9 | 107.0 |
| 150 | 186.0 | 1049.0 | 159.0 | 93.6 | 106.6 |
| 160 | 177.9 | 1057.1 | 159.0 | 92.9 | 105.6 |
| 170 | 178.1 | 1056.9 | 159.0 | 92.9 | 105.7 |
| 180 | 189.1 | 1045.9 | 159.7 | 93.9 | 107.0 |
| 190 | 193.7 | 1041.3 | 160.0 | 94.4 | 107.5 |
| 200 | 190.7 | 1044.3 | 160.0 | 94.1 | 107.2 |
| 210 | 181.4 | 1053.6 | 158.4 | 93.1 | 106.0 |
| 220 | 170.4 | 1064.6 | 155.2 | 92.0 | 104.4 |
| 230 | 154.4 | 1080.6 | 148.7 | 90.3 | 102.0 |
| 240 | 161.0 | 1074.0 | 138.7 | 90.4 | 102.2 |
| 250 | 173.7 | 1061.4 | 125.3 | 90.8 | 102.9 |
| 260 | 192.2 | 1042.8 | 109.7 | 91.5 | 103.9 |
| 270 | 187.8 | 1047.2 | 93.1 | 90.0 | 102.0 |
| 280 | 183.5 | 1051.5 | 77.7 | 88.3 | 99.9 |

TABLE I
DTV COVERAGE DATA
FOR PROPOSED OPERATION OF
KRTV-DT, GREAT FALLS, MONTANA
CHANNEL 7 160 KW ERP 180 METERS HAAT
JULY 2003
 (continued)

| <u>Radial</u> N ° E, T | Effective <u>Height</u> meters | Average <u>Elevation</u> meters | <u>ERP</u> kW | <u>Distance to Contour</u> | |
|---------------------------|--------------------------------------|---------------------------------------|------------------|----------------------------|---------------------|
| | | | | <u>43 dBu</u> km | <u>36 dBu</u> km |
| 290 | 188.0 | 1047.0 | 64.7 | 87.4 | 99.0 |
| 300 | 171.2 | 1063.8 | 54.9 | 84.9 | 96.1 |
| 310 | 144.5 | 1090.5 | 48.4 | 81.1 | 92.7 |
| 320 | 123.6 | 1111.4 | 44.6 | 77.1 | 88.9 |
| 330 | 100.7 | 1134.3 | 42.9 | 72.2 | 83.5 |
| 340 | 113.0 | 1122.0 | 42.9 | 74.7 | 86.4 |
| 350 | 120.2 | 1114.8 | 44.6 | 76.4 | 88.2 |

*Based on data from FCC 3-second data base

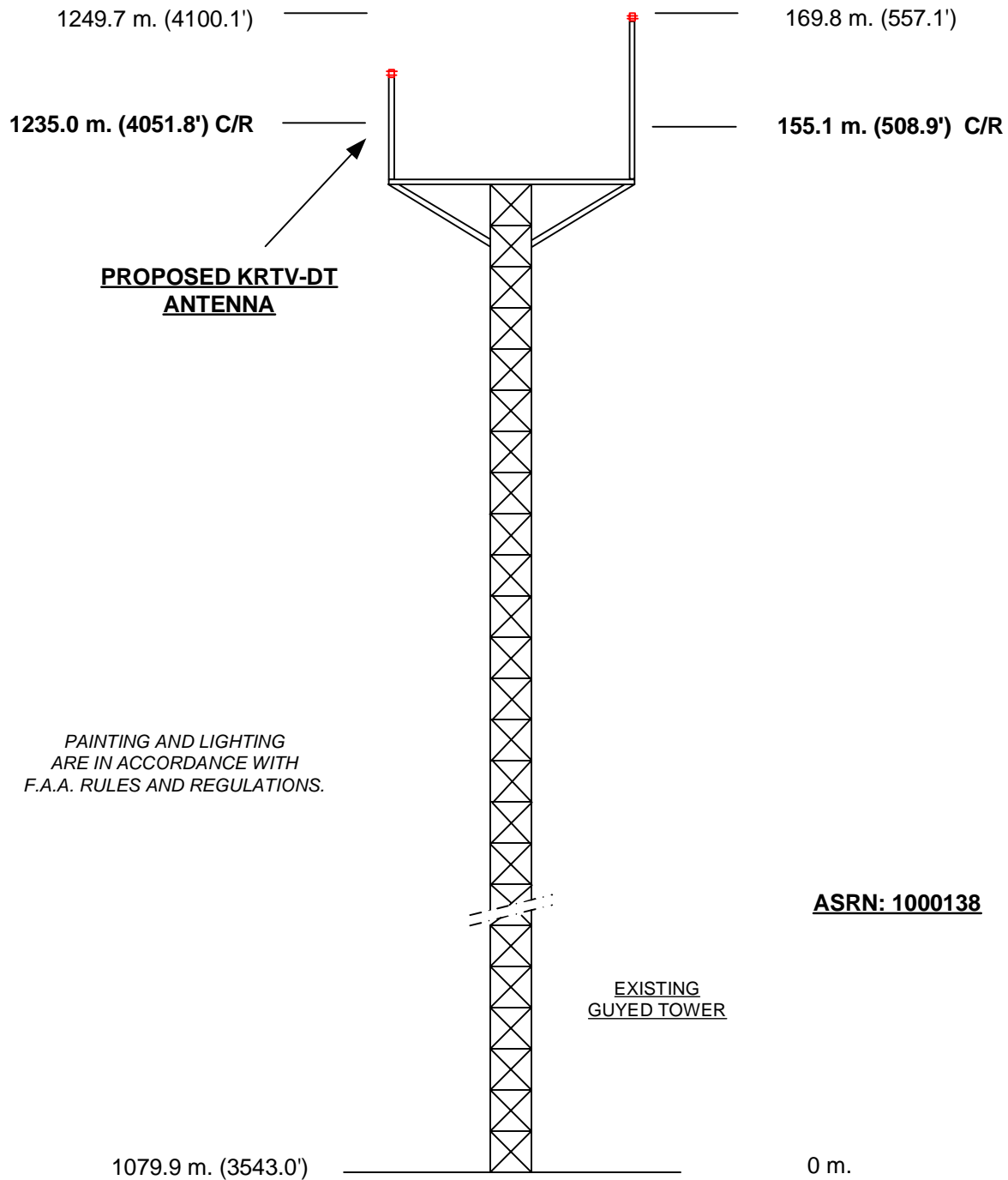
DTV Channel 7 (174-180 MHz)
 Average Elevation 3.2 to 16.1 km 1059.7 meters AMSL
 Center of Radiation 1235 meters AMSL
 Antenna Height Above Average Terrain 180 meters
 Effective Radiated Power 160 kW (22.04 dBk) Max.

North Latitude: 47° 32' 09"
 West Longitude: 111° 17' 02"

(NAD-27)

ABOVE MEAN SEA LEVEL

ABOVE GROUND



(NOT TO SCALE)

EXHIBIT E - 1
VERTICAL SKETCH
FOR THE PROPOSED OPERATION OF
KRTV-DT, GREAT FALLS, MONTANA
JULY 2003

COHEN, DIPPELL and EVERIST, P.C. CONSULTING ENGINEERS

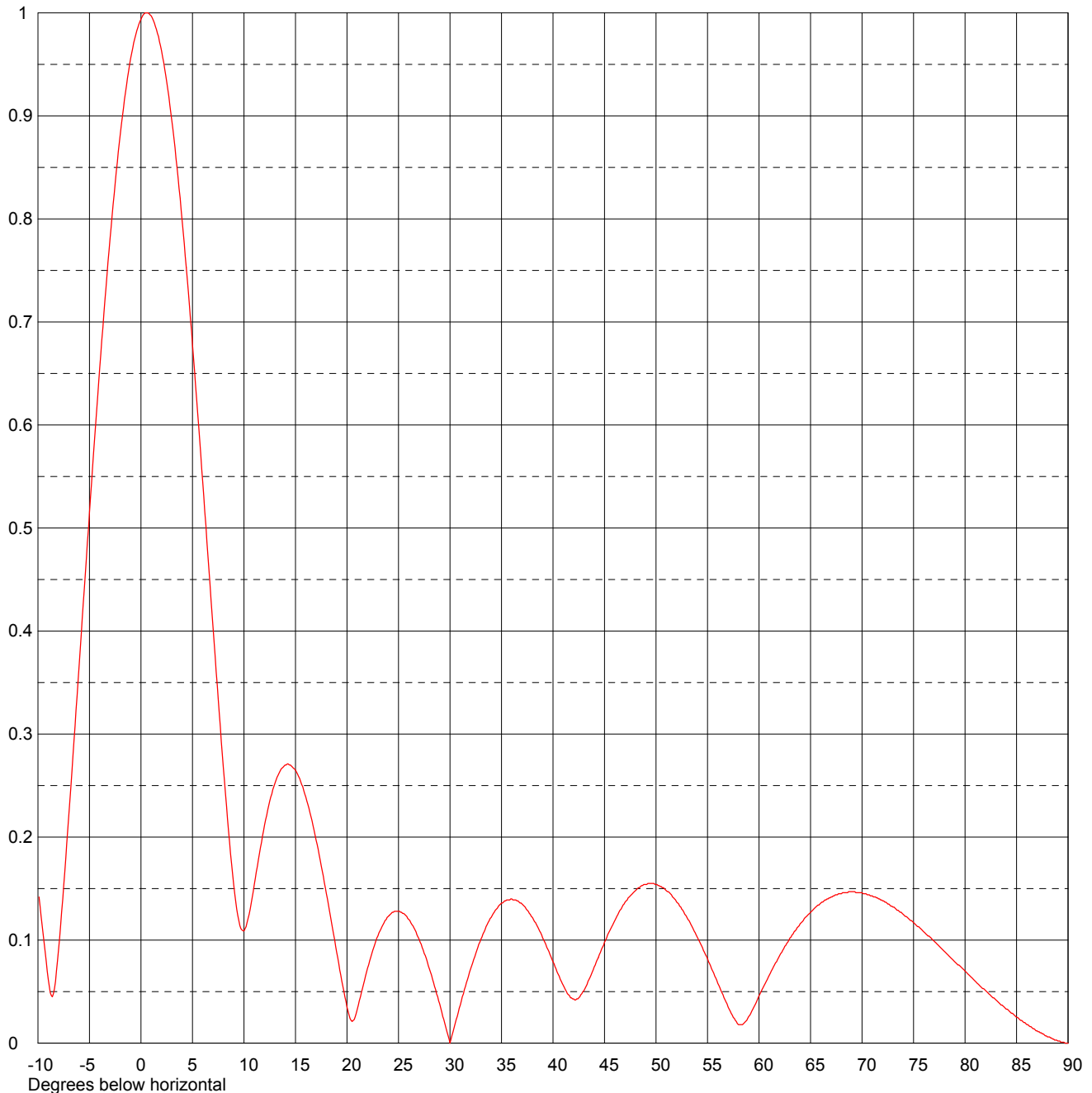


Date
Call Letters
Location
Customer
Antenna Type

July 2003
KRTV-DT Channel 7
Great Falls, Montana
KRTV Communications
THV-6A7-R C140

ELEVATION PATTERN

| | | | |
|------------------------|----------------------|-----------|---------------------|
| RMS Gain at Main Lobe | 6 (7.78 dB) | Beam Tilt | 0.50 Degrees |
| RMS Gain at Horizontal | 5.9 (7.71 dB) | Frequency | 177.00 MHz |
| Calculated / Measured | Calculated | Drawing # | 06V060050 |



Remarks:



Date **July 2003**
 Call Letters **KRTV-DT** Channel **7**
 Location **Great Falls, Montana**
 Customer **KRTV Communications**
 Antenna Type **THV-6A7-R C140**

TABULATION OF ELEVATION PATTERN

Elevation Pattern Drawing # **06V060050**

| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| -10.0 | 0.150 | 2.4 | 0.939 | 10.6 | 0.130 | 30.5 | 0.019 | 51.0 | 0.148 | 71.5 | 0.141 |
| -9.5 | 0.106 | 2.6 | 0.926 | 10.8 | 0.142 | 31.0 | 0.037 | 51.5 | 0.144 | 72.0 | 0.138 |
| -9.0 | 0.062 | 2.8 | 0.911 | 11.0 | 0.154 | 31.5 | 0.055 | 52.0 | 0.137 | 72.5 | 0.135 |
| -8.5 | 0.048 | 3.0 | 0.895 | 11.5 | 0.184 | 32.0 | 0.072 | 52.5 | 0.130 | 73.0 | 0.132 |
| -8.0 | 0.091 | 3.2 | 0.878 | 12.0 | 0.212 | 32.5 | 0.087 | 53.0 | 0.122 | 73.5 | 0.129 |
| -7.5 | 0.153 | 3.4 | 0.859 | 12.5 | 0.235 | 33.0 | 0.101 | 53.5 | 0.113 | 74.0 | 0.125 |
| -7.0 | 0.222 | 3.6 | 0.840 | 13.0 | 0.252 | 33.5 | 0.113 | 54.0 | 0.103 | 74.5 | 0.121 |
| -6.5 | 0.294 | 3.8 | 0.820 | 13.5 | 0.264 | 34.0 | 0.122 | 54.5 | 0.093 | 75.0 | 0.117 |
| -6.0 | 0.367 | 4.0 | 0.798 | 14.0 | 0.270 | 34.5 | 0.130 | 55.0 | 0.082 | 75.5 | 0.113 |
| -5.5 | 0.441 | 4.2 | 0.776 | 14.5 | 0.270 | 35.0 | 0.136 | 55.5 | 0.070 | 76.0 | 0.108 |
| -5.0 | 0.515 | 4.4 | 0.753 | 15.0 | 0.265 | 35.5 | 0.139 | 56.0 | 0.058 | 76.5 | 0.104 |
| -4.5 | 0.587 | 4.6 | 0.729 | 15.5 | 0.254 | 36.0 | 0.140 | 56.5 | 0.047 | 77.0 | 0.099 |
| -4.0 | 0.656 | 4.8 | 0.704 | 16.0 | 0.239 | 36.5 | 0.138 | 57.0 | 0.035 | 77.5 | 0.094 |
| -3.5 | 0.721 | 5.0 | 0.678 | 16.5 | 0.220 | 37.0 | 0.135 | 57.5 | 0.025 | 78.0 | 0.089 |
| -3.0 | 0.781 | 5.2 | 0.652 | 17.0 | 0.197 | 37.5 | 0.129 | 58.0 | 0.018 | 78.5 | 0.084 |
| -2.8 | 0.804 | 5.4 | 0.626 | 17.5 | 0.172 | 38.0 | 0.122 | 58.5 | 0.019 | 79.0 | 0.079 |
| -2.6 | 0.825 | 5.6 | 0.599 | 18.0 | 0.145 | 38.5 | 0.113 | 59.0 | 0.026 | 79.5 | 0.075 |
| -2.4 | 0.846 | 5.8 | 0.571 | 18.5 | 0.117 | 39.0 | 0.102 | 59.5 | 0.035 | 80.0 | 0.070 |
| -2.2 | 0.865 | 6.0 | 0.544 | 19.0 | 0.088 | 39.5 | 0.091 | 60.0 | 0.046 | 80.5 | 0.065 |
| -2.0 | 0.883 | 6.2 | 0.516 | 19.5 | 0.060 | 40.0 | 0.079 | 60.5 | 0.056 | 81.0 | 0.060 |
| -1.8 | 0.900 | 6.4 | 0.487 | 20.0 | 0.035 | 40.5 | 0.067 | 61.0 | 0.066 | 81.5 | 0.055 |
| -1.6 | 0.916 | 6.6 | 0.459 | 20.5 | 0.021 | 41.0 | 0.056 | 61.5 | 0.076 | 82.0 | 0.051 |
| -1.4 | 0.930 | 6.8 | 0.431 | 21.0 | 0.033 | 41.5 | 0.047 | 62.0 | 0.085 | 82.5 | 0.046 |
| -1.2 | 0.944 | 7.0 | 0.403 | 21.5 | 0.053 | 42.0 | 0.043 | 62.5 | 0.094 | 83.0 | 0.042 |
| -1.0 | 0.956 | 7.2 | 0.375 | 22.0 | 0.073 | 42.5 | 0.044 | 63.0 | 0.102 | 83.5 | 0.037 |
| -0.8 | 0.966 | 7.4 | 0.347 | 22.5 | 0.090 | 43.0 | 0.051 | 63.5 | 0.109 | 84.0 | 0.033 |
| -0.6 | 0.975 | 7.6 | 0.320 | 23.0 | 0.104 | 43.5 | 0.062 | 64.0 | 0.116 | 84.5 | 0.029 |
| -0.4 | 0.983 | 7.8 | 0.293 | 23.5 | 0.115 | 44.0 | 0.074 | 64.5 | 0.122 | 85.0 | 0.025 |
| -0.2 | 0.989 | 8.0 | 0.267 | 24.0 | 0.123 | 44.5 | 0.086 | 65.0 | 0.127 | 85.5 | 0.022 |
| 0.0 | 0.994 | 8.2 | 0.242 | 24.5 | 0.127 | 45.0 | 0.098 | 65.5 | 0.132 | 86.0 | 0.018 |
| 0.2 | 0.998 | 8.4 | 0.218 | 25.0 | 0.128 | 45.5 | 0.109 | 66.0 | 0.136 | 86.5 | 0.015 |
| 0.4 | 1.000 | 8.6 | 0.195 | 25.5 | 0.126 | 46.0 | 0.119 | 66.5 | 0.139 | 87.0 | 0.012 |
| 0.6 | 1.000 | 8.8 | 0.173 | 26.0 | 0.120 | 46.5 | 0.129 | 67.0 | 0.142 | 87.5 | 0.009 |
| 0.8 | 0.999 | 9.0 | 0.154 | 26.5 | 0.112 | 47.0 | 0.137 | 67.5 | 0.144 | 88.0 | 0.006 |
| 1.0 | 0.997 | 9.2 | 0.137 | 27.0 | 0.101 | 47.5 | 0.143 | 68.0 | 0.145 | 88.5 | 0.004 |
| 1.2 | 0.993 | 9.4 | 0.124 | 27.5 | 0.087 | 48.0 | 0.148 | 68.5 | 0.146 | 89.0 | 0.002 |
| 1.4 | 0.987 | 9.6 | 0.114 | 28.0 | 0.072 | 48.5 | 0.152 | 69.0 | 0.147 | 89.5 | 0.001 |
| 1.6 | 0.980 | 9.8 | 0.110 | 28.5 | 0.055 | 49.0 | 0.154 | 69.5 | 0.146 | 90.0 | 0.000 |
| 1.8 | 0.972 | 10.0 | 0.109 | 29.0 | 0.038 | 49.5 | 0.155 | 70.0 | 0.146 | | |
| 2.0 | 0.963 | 10.2 | 0.113 | 29.5 | 0.019 | 50.0 | 0.154 | 70.5 | 0.144 | | |
| 2.2 | 0.952 | 10.4 | 0.121 | 30.0 | 0.000 | 50.5 | 0.152 | 71.0 | 0.143 | | |

Remarks:



Date
Call Letters
Location
Customer
Antenna Type

July 2003
KRTV-DT Channel 7
Great Falls, Montana
KRTV Communications
THV-6A7-R C140

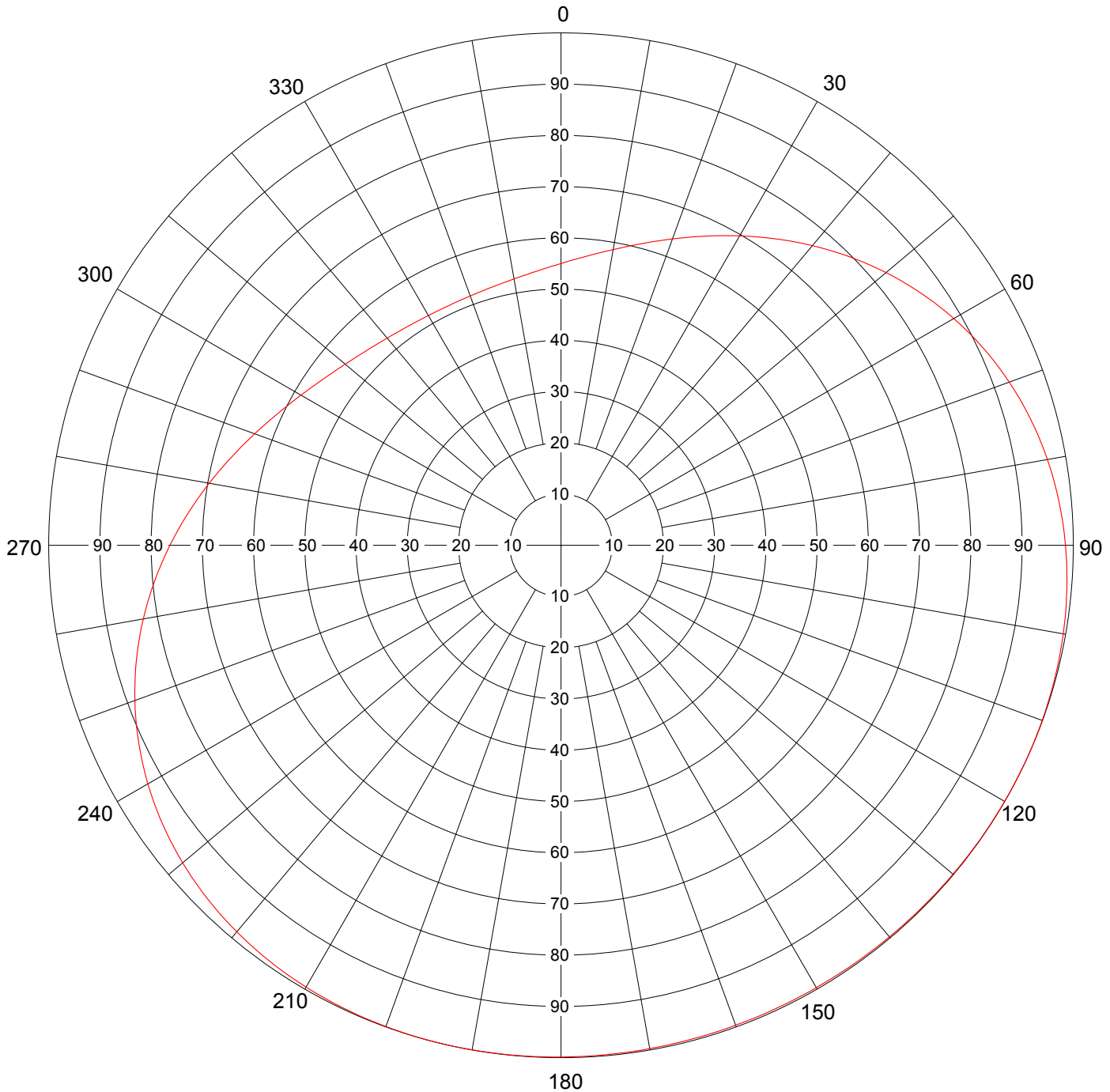
AZIMUTH PATTERN

Gain
Calculated / Measured

1.40 (1.46 dB)
Calculated

Frequency
Drawing #

177 MHz
THV-C140



Remarks:



| | |
|--------------|---------------------------------|
| Date | July 2003 |
| Call Letters | KRTV-DT Channel 7 |
| Location | Great Falls, Montana |
| Customer | KRTV Communications |
| Antenna Type | THV-6A7-R C140 |

TABULATION OF AZIMUTH PATTERN

Azimuth Pattern Drawing # **THV-C140**

| Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field | Angle | Field |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0 | 0.550 | 45 | 0.796 | 90 | 0.985 | 135 | 0.998 | 180 | 0.999 | 225 | 0.976 | 270 | 0.763 | 315 | 0.537 |
| 1 | 0.553 | 46 | 0.803 | 91 | 0.986 | 136 | 0.998 | 181 | 0.999 | 226 | 0.974 | 271 | 0.757 | 316 | 0.535 |
| 2 | 0.556 | 47 | 0.809 | 92 | 0.988 | 137 | 0.998 | 182 | 0.999 | 227 | 0.971 | 272 | 0.750 | 317 | 0.533 |
| 3 | 0.559 | 48 | 0.816 | 93 | 0.989 | 138 | 0.998 | 183 | 0.999 | 228 | 0.969 | 273 | 0.743 | 318 | 0.531 |
| 4 | 0.563 | 49 | 0.822 | 94 | 0.990 | 139 | 0.998 | 184 | 0.999 | 229 | 0.967 | 274 | 0.737 | 319 | 0.529 |
| 5 | 0.566 | 50 | 0.828 | 95 | 0.991 | 140 | 0.997 | 185 | 0.999 | 230 | 0.964 | 275 | 0.730 | 320 | 0.528 |
| 6 | 0.570 | 51 | 0.834 | 96 | 0.992 | 141 | 0.997 | 186 | 0.999 | 231 | 0.961 | 276 | 0.724 | 321 | 0.526 |
| 7 | 0.574 | 52 | 0.840 | 97 | 0.993 | 142 | 0.997 | 187 | 1.000 | 232 | 0.958 | 277 | 0.717 | 322 | 0.525 |
| 8 | 0.578 | 53 | 0.846 | 98 | 0.994 | 143 | 0.997 | 188 | 1.000 | 233 | 0.956 | 278 | 0.710 | 323 | 0.524 |
| 9 | 0.582 | 54 | 0.852 | 99 | 0.995 | 144 | 0.997 | 189 | 1.000 | 234 | 0.952 | 279 | 0.704 | 324 | 0.523 |
| 10 | 0.586 | 55 | 0.858 | 100 | 0.995 | 145 | 0.997 | 190 | 1.000 | 235 | 0.949 | 280 | 0.697 | 325 | 0.521 |
| 11 | 0.590 | 56 | 0.864 | 101 | 0.996 | 146 | 0.997 | 191 | 1.000 | 236 | 0.946 | 281 | 0.691 | 326 | 0.521 |
| 12 | 0.595 | 57 | 0.869 | 102 | 0.997 | 147 | 0.997 | 192 | 1.000 | 237 | 0.942 | 282 | 0.685 | 327 | 0.520 |
| 13 | 0.600 | 58 | 0.875 | 103 | 0.997 | 148 | 0.997 | 193 | 1.000 | 238 | 0.939 | 283 | 0.678 | 328 | 0.519 |
| 14 | 0.605 | 59 | 0.880 | 104 | 0.998 | 149 | 0.997 | 194 | 1.000 | 239 | 0.935 | 284 | 0.672 | 329 | 0.518 |
| 15 | 0.610 | 60 | 0.885 | 105 | 0.998 | 150 | 0.997 | 195 | 1.000 | 240 | 0.931 | 285 | 0.666 | 330 | 0.518 |
| 16 | 0.615 | 61 | 0.890 | 106 | 0.999 | 151 | 0.997 | 196 | 1.000 | 241 | 0.927 | 286 | 0.660 | 331 | 0.517 |
| 17 | 0.620 | 62 | 0.895 | 107 | 0.999 | 152 | 0.997 | 197 | 1.000 | 242 | 0.923 | 287 | 0.654 | 332 | 0.517 |
| 18 | 0.625 | 63 | 0.900 | 108 | 0.999 | 153 | 0.997 | 198 | 1.000 | 243 | 0.919 | 288 | 0.648 | 333 | 0.517 |
| 19 | 0.631 | 64 | 0.905 | 109 | 0.999 | 154 | 0.997 | 199 | 1.000 | 244 | 0.914 | 289 | 0.642 | 334 | 0.517 |
| 20 | 0.636 | 65 | 0.910 | 110 | 1.000 | 155 | 0.997 | 200 | 1.000 | 245 | 0.910 | 290 | 0.636 | 335 | 0.517 |
| 21 | 0.642 | 66 | 0.914 | 111 | 1.000 | 156 | 0.997 | 201 | 0.999 | 246 | 0.905 | 291 | 0.631 | 336 | 0.517 |
| 22 | 0.648 | 67 | 0.919 | 112 | 1.000 | 157 | 0.997 | 202 | 0.999 | 247 | 0.900 | 292 | 0.625 | 337 | 0.517 |
| 23 | 0.654 | 68 | 0.923 | 113 | 1.000 | 158 | 0.997 | 203 | 0.999 | 248 | 0.895 | 293 | 0.620 | 338 | 0.517 |
| 24 | 0.660 | 69 | 0.927 | 114 | 1.000 | 159 | 0.997 | 204 | 0.999 | 249 | 0.890 | 294 | 0.615 | 339 | 0.517 |
| 25 | 0.666 | 70 | 0.931 | 115 | 1.000 | 160 | 0.997 | 205 | 0.998 | 250 | 0.885 | 295 | 0.610 | 340 | 0.518 |
| 26 | 0.672 | 71 | 0.935 | 116 | 1.000 | 161 | 0.997 | 206 | 0.998 | 251 | 0.880 | 296 | 0.605 | 341 | 0.518 |
| 27 | 0.678 | 72 | 0.939 | 117 | 1.000 | 162 | 0.997 | 207 | 0.997 | 252 | 0.875 | 297 | 0.600 | 342 | 0.519 |
| 28 | 0.685 | 73 | 0.942 | 118 | 1.000 | 163 | 0.997 | 208 | 0.997 | 253 | 0.869 | 298 | 0.595 | 343 | 0.520 |
| 29 | 0.691 | 74 | 0.946 | 119 | 1.000 | 164 | 0.997 | 209 | 0.996 | 254 | 0.864 | 299 | 0.590 | 344 | 0.521 |
| 30 | 0.697 | 75 | 0.949 | 120 | 1.000 | 165 | 0.997 | 210 | 0.995 | 255 | 0.858 | 300 | 0.586 | 345 | 0.521 |
| 31 | 0.704 | 76 | 0.952 | 121 | 1.000 | 166 | 0.997 | 211 | 0.995 | 256 | 0.852 | 301 | 0.582 | 346 | 0.523 |
| 32 | 0.710 | 77 | 0.956 | 122 | 1.000 | 167 | 0.997 | 212 | 0.994 | 257 | 0.846 | 302 | 0.578 | 347 | 0.524 |
| 33 | 0.717 | 78 | 0.958 | 123 | 1.000 | 168 | 0.997 | 213 | 0.993 | 258 | 0.840 | 303 | 0.574 | 348 | 0.525 |
| 34 | 0.724 | 79 | 0.961 | 124 | 0.999 | 169 | 0.997 | 214 | 0.992 | 259 | 0.834 | 304 | 0.570 | 349 | 0.526 |
| 35 | 0.730 | 80 | 0.964 | 125 | 0.999 | 170 | 0.997 | 215 | 0.991 | 260 | 0.828 | 305 | 0.566 | 350 | 0.528 |
| 36 | 0.737 | 81 | 0.967 | 126 | 0.999 | 171 | 0.998 | 216 | 0.990 | 261 | 0.822 | 306 | 0.563 | 351 | 0.529 |
| 37 | 0.743 | 82 | 0.969 | 127 | 0.999 | 172 | 0.998 | 217 | 0.989 | 262 | 0.816 | 307 | 0.559 | 352 | 0.531 |
| 38 | 0.750 | 83 | 0.971 | 128 | 0.999 | 173 | 0.998 | 218 | 0.988 | 263 | 0.809 | 308 | 0.556 | 353 | 0.533 |
| 39 | 0.757 | 84 | 0.974 | 129 | 0.999 | 174 | 0.998 | 219 | 0.986 | 264 | 0.803 | 309 | 0.553 | 354 | 0.535 |
| 40 | 0.763 | 85 | 0.976 | 130 | 0.999 | 175 | 0.998 | 220 | 0.985 | 265 | 0.796 | 310 | 0.550 | 355 | 0.537 |
| 41 | 0.770 | 86 | 0.978 | 131 | 0.999 | 176 | 0.998 | 221 | 0.983 | 266 | 0.790 | 311 | 0.547 | 356 | 0.540 |
| 42 | 0.777 | 87 | 0.980 | 132 | 0.998 | 177 | 0.998 | 222 | 0.981 | 267 | 0.783 | 312 | 0.544 | 357 | 0.542 |
| 43 | 0.783 | 88 | 0.981 | 133 | 0.998 | 178 | 0.998 | 223 | 0.980 | 268 | 0.777 | 313 | 0.542 | 358 | 0.544 |
| 44 | 0.790 | 89 | 0.983 | 134 | 0.998 | 179 | 0.999 | 224 | 0.978 | 269 | 0.770 | 314 | 0.540 | 359 | 0.547 |

Remarks:

