

TECHNICAL EXHIBIT
MINOR CHANGE APPLICATION FOR
MODIFICATION OF CONSTRUCTION PERMIT
STATION KMVU-DT (FACILITY ID 32958)
MEDFORD, OREGON

MAY 26, 2005

CH 27 10.3 KW (MAX-DA) 425 M

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Table of Contents

Technical Narrative

Figure 1	Antenna and Supporting Structure
Figure 2	Antenna Patterns
Figure 3	Predicted DTV Coverage Contours
Figure 4	Predicted 41 dBu Contours

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Technical Narrative

This Technical Exhibit supports a minor change application for modification of construction permit (CP) for digital television (DTV) station KMVU-DT at Medford, Oregon (Facility ID 32958).

Station KMVU was allotted DTV channel 27 at its analog site. The FCC assigned the channel 27 DTV allotment a maximum effective radiated power (ERP) of 50 kilowatts (kW) and antenna height above average terrain (HAAT) of 428 meters.

Station KMVU-DT is currently authorized to operate on channel 27 (BPCDT-19991027AAZ). Station KMVU-DT is authorized to use a directional antenna (DA) system. The maximum ERP is 1000 kW and the antenna HAAT is 447 meters. The transmitter site coordinates are 42-17-54, 122-44-59 (NAD-27).

Proposed DTV Facilities

This minor change application to modify the CP proposes to change the KMVU-DT directional antenna system, decrease the antenna HAAT, decrease the ERP, and correct the site coordinates to those for the KMVU(TV) analog operation. There is no proposed change in channel (27) and city of assignment (Medford, OR). It is proposed to employ an Andrew (ERI) model AL8-Plus directional antenna (DA) system. The antenna

pattern is omnioid shaped and the major lobe will be oriented toward 300 degrees True. The antenna system has an electrical beam tilt of 1.75 degrees. The antenna will be installed with the center of radiation 20.4 meters above ground level (AGL), and 1183.4 meters above mean sea level (AMSL). The proposed antenna HAAT is 425 meters. The proposed maximum DTV ERP is 10.3 kW. The site coordinates for the existing KMVU tower are 42-17-54, 122-44-53 (NAD-27).

Figure 1 is a sketch of the proposed antenna and supporting structure.

Figure 2 shows the proposed antenna's azimuth and vertical radiation patterns.

Figure 3 is a map showing the predicted 48 dBu and 41 dBu contours for the proposed KMVU-DT operation. The city limits of Medford, Oregon are indicated. The estimated population (2000 Census) and land area within the predicted 41 contour are 273,153 people and 15,360 square kilometers, respectively.

Figure 4 is a map showing the predicted 41 dBu F(50,90) contours for the KMVU-DT CP operation (1000 kW-DA, 447 m) and the proposed KMVU-DT operation (10.3 kW-DA, 425 m). The predicted 41 dBu contour for the proposed KMVU-DT operation is completely within the 41 dBu contour for the CP operation. Therefore, it is believed the proposed KMVU-DT operation complies with the FCC's freeze exemption for a minor change application.

Allocation Study

The proposed KMVU-DT operation meets the FCC's interference standards to pertinent analog (NTSC) and DTV assignments using the procedures outlined in the FCC's OET-69 Bulletin and a 2 kilometers grid. The proposed KMVU-DT operation complies with the FCC's "de minimis" interference policy with respect to pertinent Class A TV assignments. If necessary, a waiver of the FCC rules is requested with respect to use of the OET-69 interference procedures.

There are other TV and FM stations in the vicinity of the proposed KMVU-DT operation. Only station KIFS(FM) on channel 298C2 at Ashland, Oregon and low power television (LPTV) station KFBI-LP on channel 68 at Ashland, Oregon have the same site coordinates as the proposed KMVU-DT operation. There are no AM stations within 4 kilometers (2.5 miles) of the KMVU-DT site. Although no adverse electromagnetic interaction is expected from KMVU-DT's proposed operation, the applicant recognizes its responsibility to correct prohibited interference problems that its proposed operation may create.

The KMVU-DT site is 661 kilometers south from the closest point of the Canadian border. The KMVU-DT site is more than 1100 kilometers from the Mexican border. The closest FCC monitoring station is at Livermore, California, approximately 515 kilometers to the south. The closest point of the National Radio Quiet Zone (VA/WVA) is more than 3500 kilometers to the east. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 1400 kilometers to the east. The closest radio astronomy site using channel 37 is at Owens Valley, California, approximately 680 kilometers to the southeast. These separations are considered sufficient to avoid coordination problems.

Radiofrequency Electromagnetic Field Exposure

The proposed KMVU-DT facilities were evaluated in terms of potential radio frequency (RF) energy exposure at ground level to workers and the general public. The radiation center for the proposed antenna is located 20.4 meters above ground level. The maximum ERP of 10.3 kW is assumed. A relative field value of 0.2 was assumed for the antenna's downward radiation (see Figure 2). The calculated power density at a point 2 meters (6.6 feet) above ground level is 0.04066 mW/cm^2 . This is approximately 11% of the FCC's recommended limit of 0.37 mW/cm^2 for channel 27 for an "uncontrolled" environment. The calculated power density is 2.2% of the FCC's recommended limit for a "controlled" environment.

Access to the transmitting equipment will be restricted and appropriately marked with warning signs. 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.

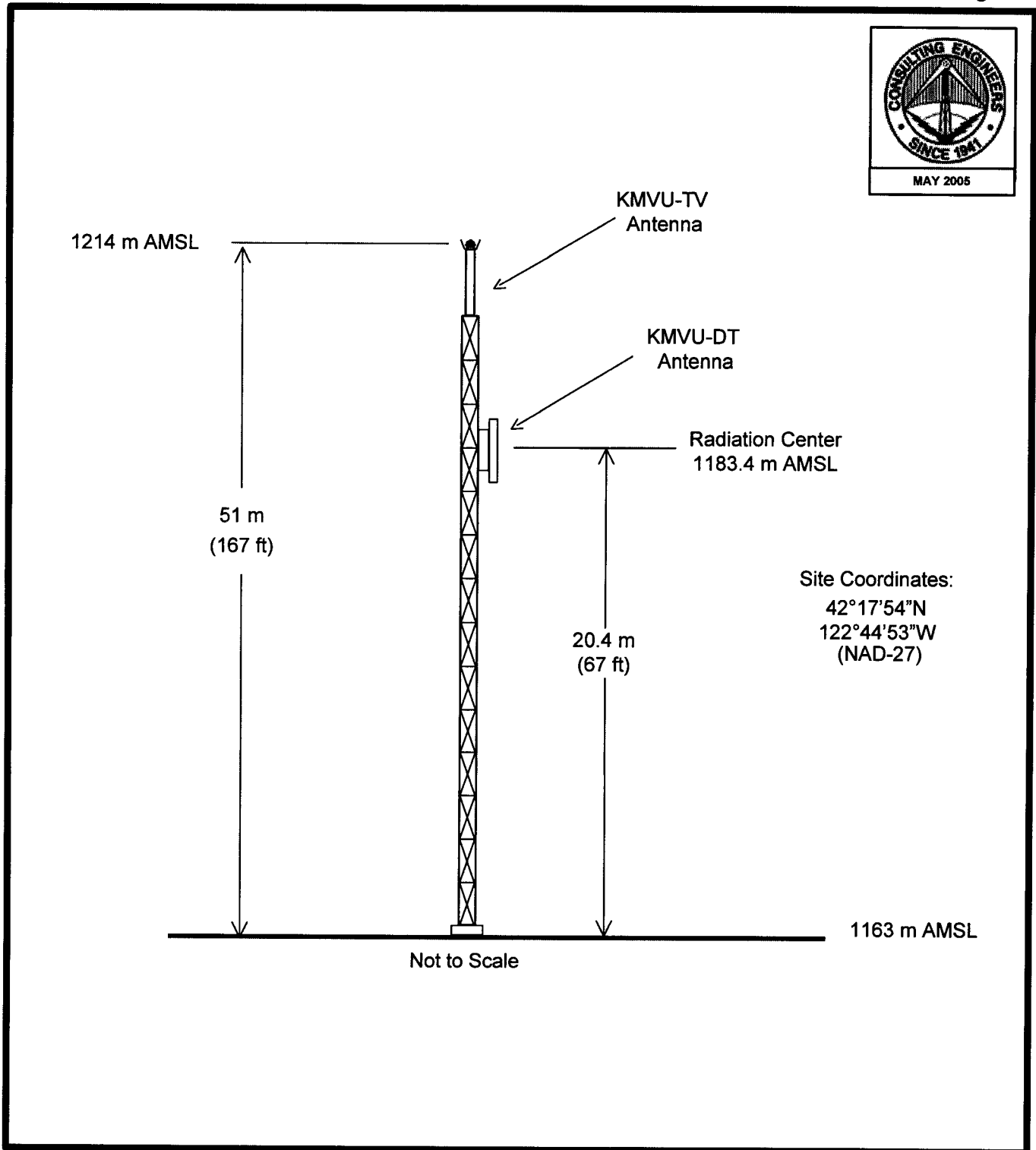
If there are questions concerning the technical portion of this application, please contact the office of the undersigned.

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May 26, 2005

Figure 1



PROPOSED ANTENNA AND SUPPORTING STRUCTURE

STATION KMVU-DT
MEDFORD, OREGON
CH 27 10.3 KW (MAX-DA) 425 M

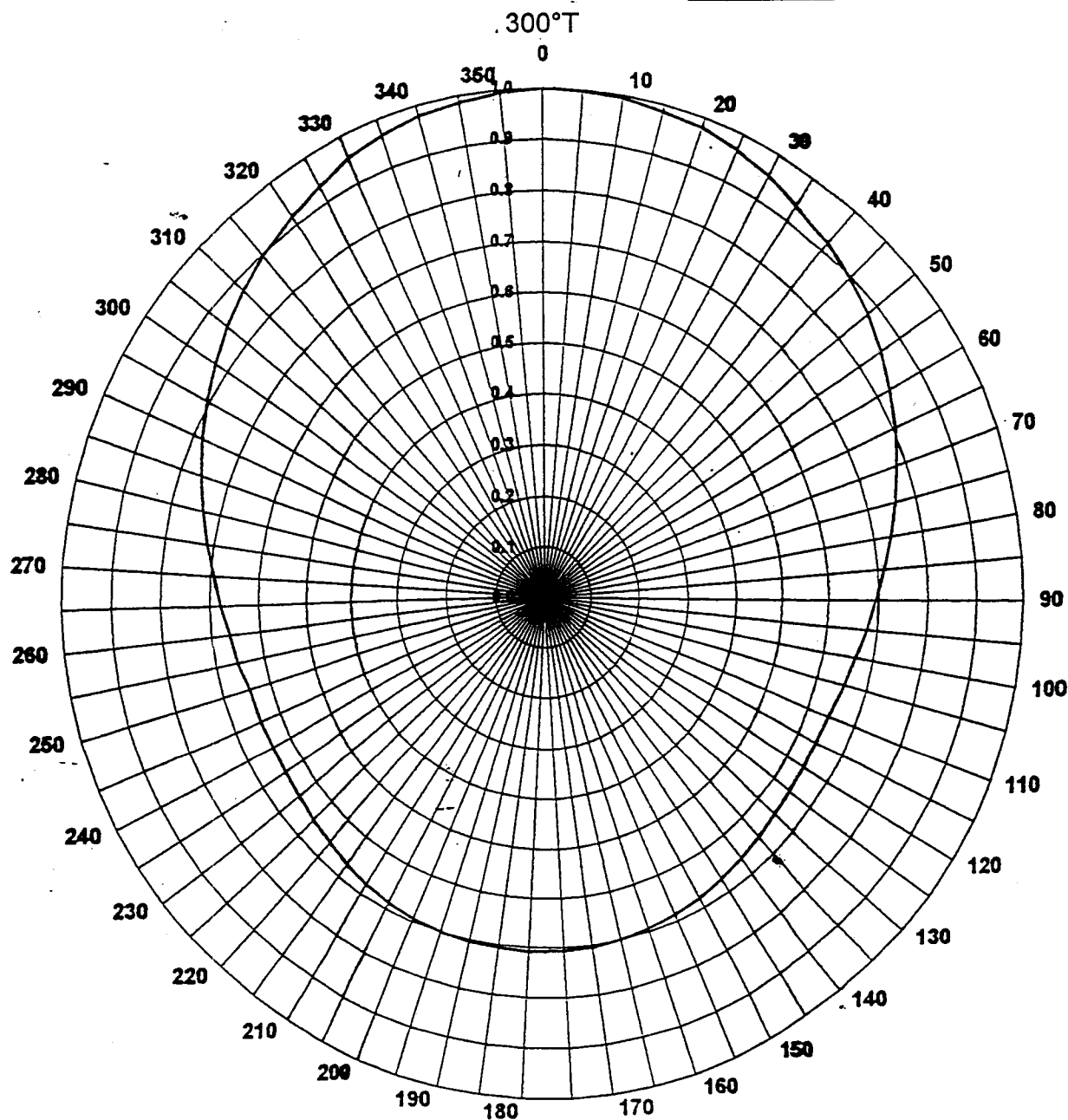
du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Peak Gain: 14.06 (11.43 dB)

AZIMUTH PATTERN

TYPE	AL3 PLUS Low Power	
	Numeric	dB
Directivity:	1.56	(1.92)
Peak(s) at:		
Polarization:	Horizontal	
Channel:		
Location:		

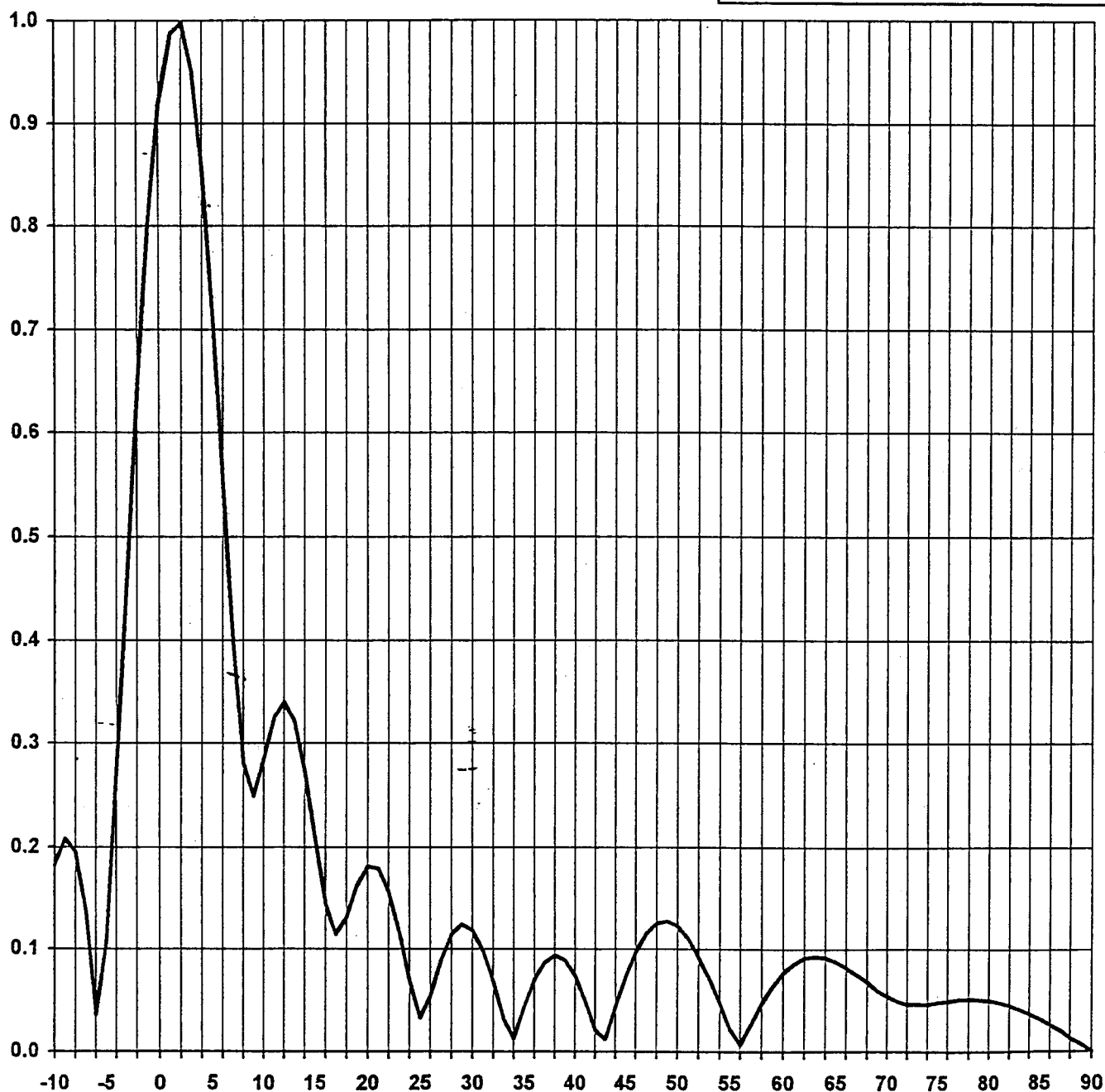
Note: Pattern shape and directivity may vary with channel and mounting configuration.



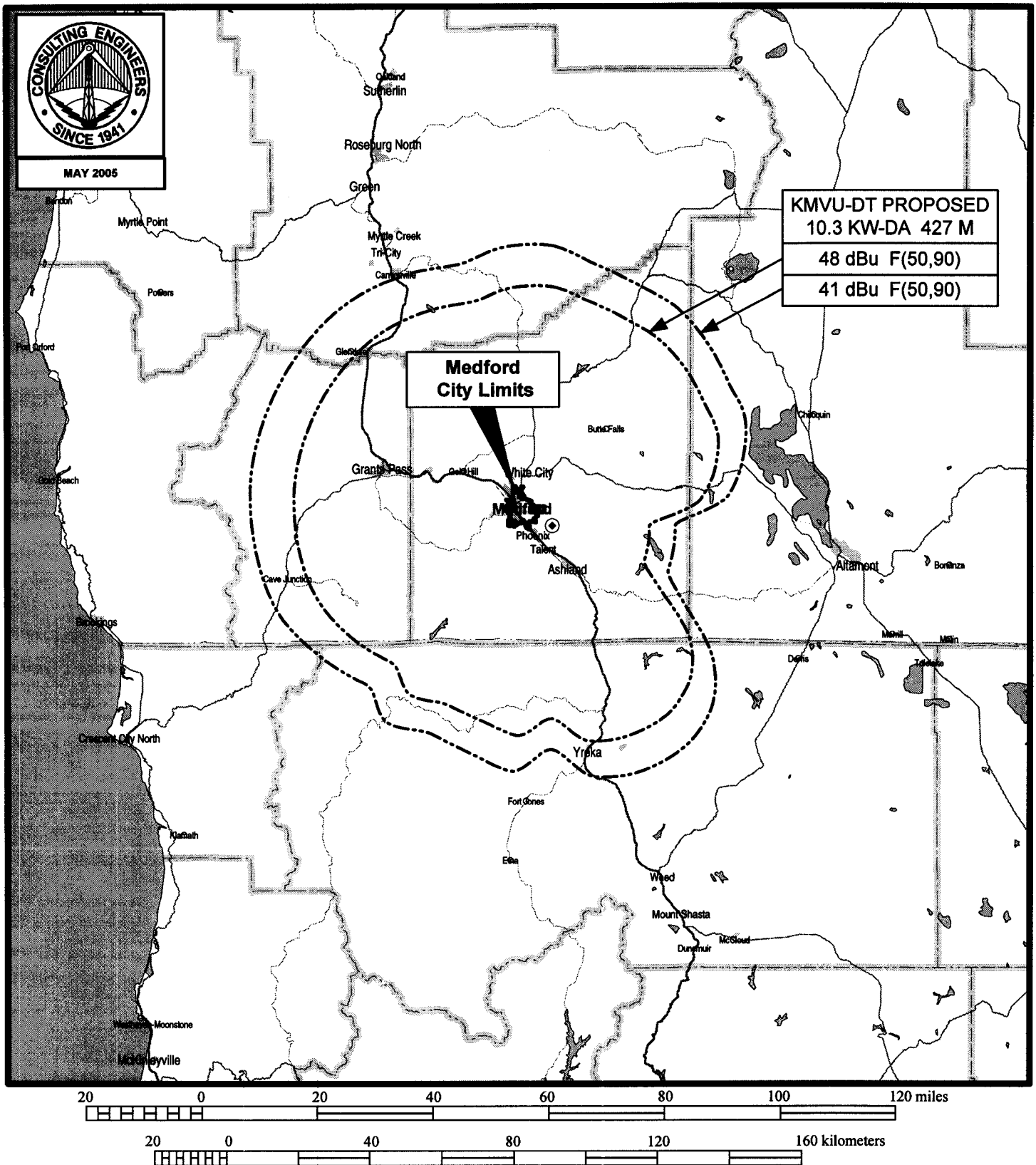
Andrew Corporation
10500 W. 153rd Street
Orland Park, Illinois USA 60462

ELEVATION PATTERN

TYPE:	AL8 PLUS Low Power	
Directivity:	Numeric	dBd
Main Lobe:	<u>9.05</u>	<u>(9.57)</u>
Horizontal:		
Beam Tilt:	<u>1.75</u>	
Polarization:	<u>Horizontal</u>	
Channel:		
Location:		



Andrew Corporation
10500 W. 153rd Street
Orland Park, Illinois USA 60462

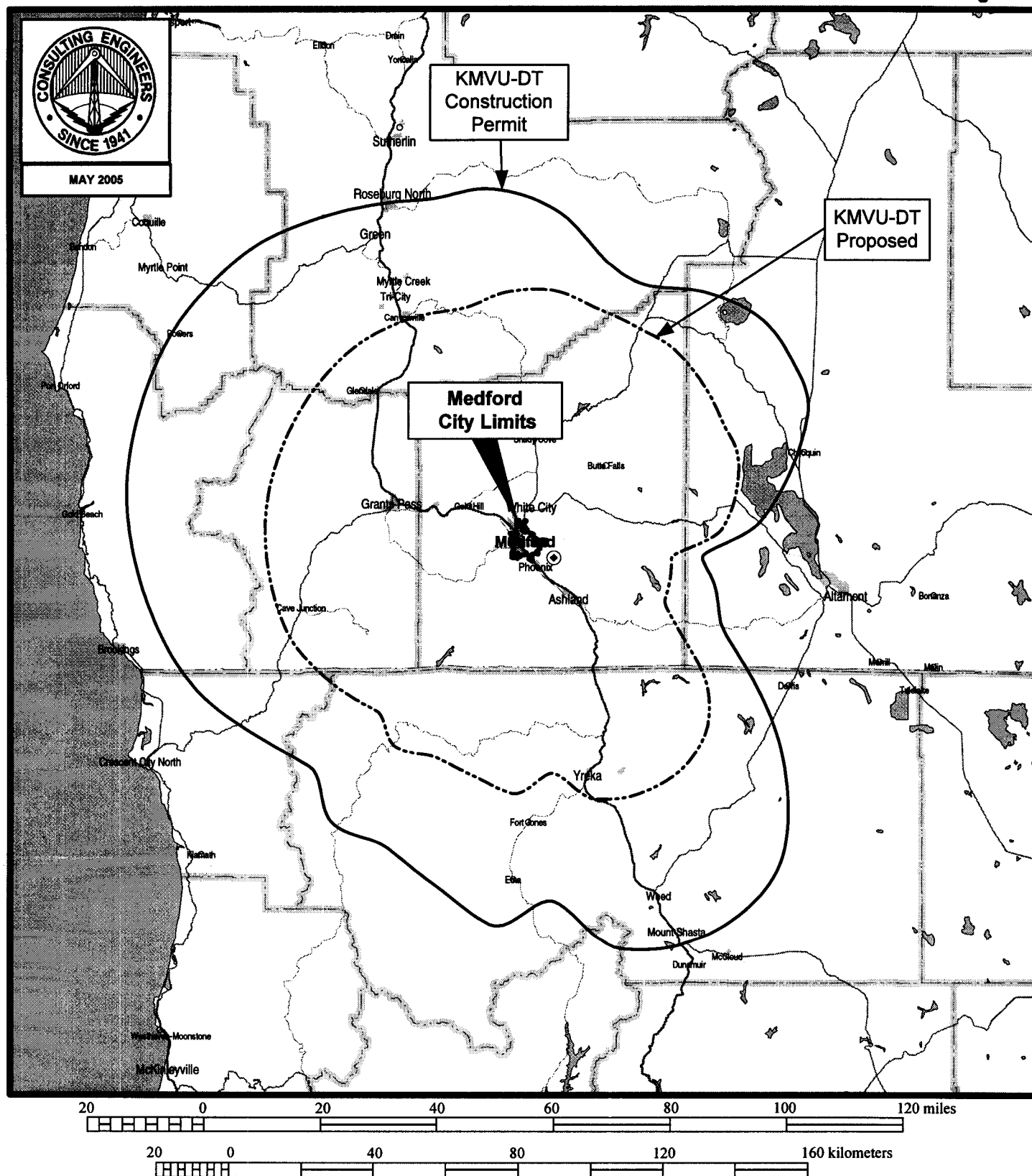


PREDICTED DTV COVERAGE CONTOURS

STATION KMVU-DT
MEDFORD, OREGON
CH 27 10.3 KW (MAX-DA) 425 M

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

Figure 4



PREDICTED 41 dBu COVERAGE CONTOURS

STATION KMVU-DT
MEDFORD, OREGON
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du Treil, Lundin & Rackley, Inc. Sarasota, Florida