TECHNICAL EXHIBIT
MINOR MODIFICATION OF CONSTRUCTION PERMIT
STATION KHBC-DT (FACILITY ID 34846)
HILO, HAWAII

MARCH 8, 2002

CH 22 8 KW (MAX-DA) -170 M

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Table of Contents

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Technical Narrative

This Technical Exhibit was prepared on behalf of digital television station KHBC-DT at Hilo, Hawaii, in support of an application for minor modification of construction permit. Station KHBC-DT is authorized to operate on channel 22 with a directional antenna maximum effective radiated power (ERP) of 50 kW and an antenna height above average terrain (HAAT) of -176 meters (BPCDT-19991029AFT). The proposed KHBC-DT facility will operate with a maximum directional ERP of 8 kW and an antenna HAAT of -170 meters.

This application is condsidered "checklist" as it meets the criteria specified in Section III-D, DTV Engineering of the FCC form 301. Therefore, no allocation studies considering NTSC, DTV or Class A stations are required. The proposed facilities (8 kW, -170 meters) do not exceed the allotment reference facilities (50 kW, 33 meters).

Proposed Facilities

This application proposes only to reduce the directional ERP, change the directional antenna and slightly increase antenna height. The new antenna radiation center will be increased by 4 meters to 46 meters above ground level. The transmitter site coordinates (NAD27) remain: 19-43-51 N, 155-04-11 W. The existing building/tower

structure is not registered with the FCC, as it is less than 200 feet above ground level. FAA notification is not required as there will be no change in existing overall height by installation of the KHBC-DT directional antenna.

There are no AM broadcast stations located within 3.2 kilometers of the KHBC-DT transmitter site. No adverse affect from this proposed checklist application is expected to any nearby broadcast station. However, the applicant recognizes its responsibility to correct problems that may result from its proposed operation.

The proposed checklist application is beyond the 400 km coordination zones with Canada and Mexico. The closest FCC monitoring station is at Waipahu, Hawaii, approximately 356 kilometers to the west-northwest. The closest point of the National Radio Quiet Zone (VA/WV) is more than 7,300 kilometers to the northeast. The closest point of the Table Mountain Radio Quiet Zone (CO) is more than 5,200 kilometers to the northeast. The closest radio astronomy site operating on TV channel 37 is at Mauna Kea, Hawaii, approximately 41 kilometers to the west. It is noted that the proposed directional antenna will reduce the ERP towards the Mauna Kea observatory from that which is already authorized by the current KHBC-DT CP. These separations are sufficient to not be a concern for coordination purposes.

Environmental Considerations

The proposed KHBC-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 DTV antenna is located 19.2 meters above rooftop level. The proposed maximum directional ERP is 8 kW. A relative field value of 0.238 was assumed for the calculation, at a downward angle of 53 degrees (see Figure 2B). Therefore, the "worst-case" calculated power density at a point 2 meters above rooftop level will be 0.0328 mW/cm^2. Since the rooftop access is restricted from public use, it can be considered a

"controlled" environment. The above calculated power density value is les than 2% percent of the FCC's recommended limit of 1.74 mW/cm^2 for channel 22 for a "controlled" environment.

Access to the rooftop is restricted and appropriately marked with warning signs. As this is a multi-user site and 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 KHBC-DT operation appears to be otherwise categorically excluded from environmental processing.

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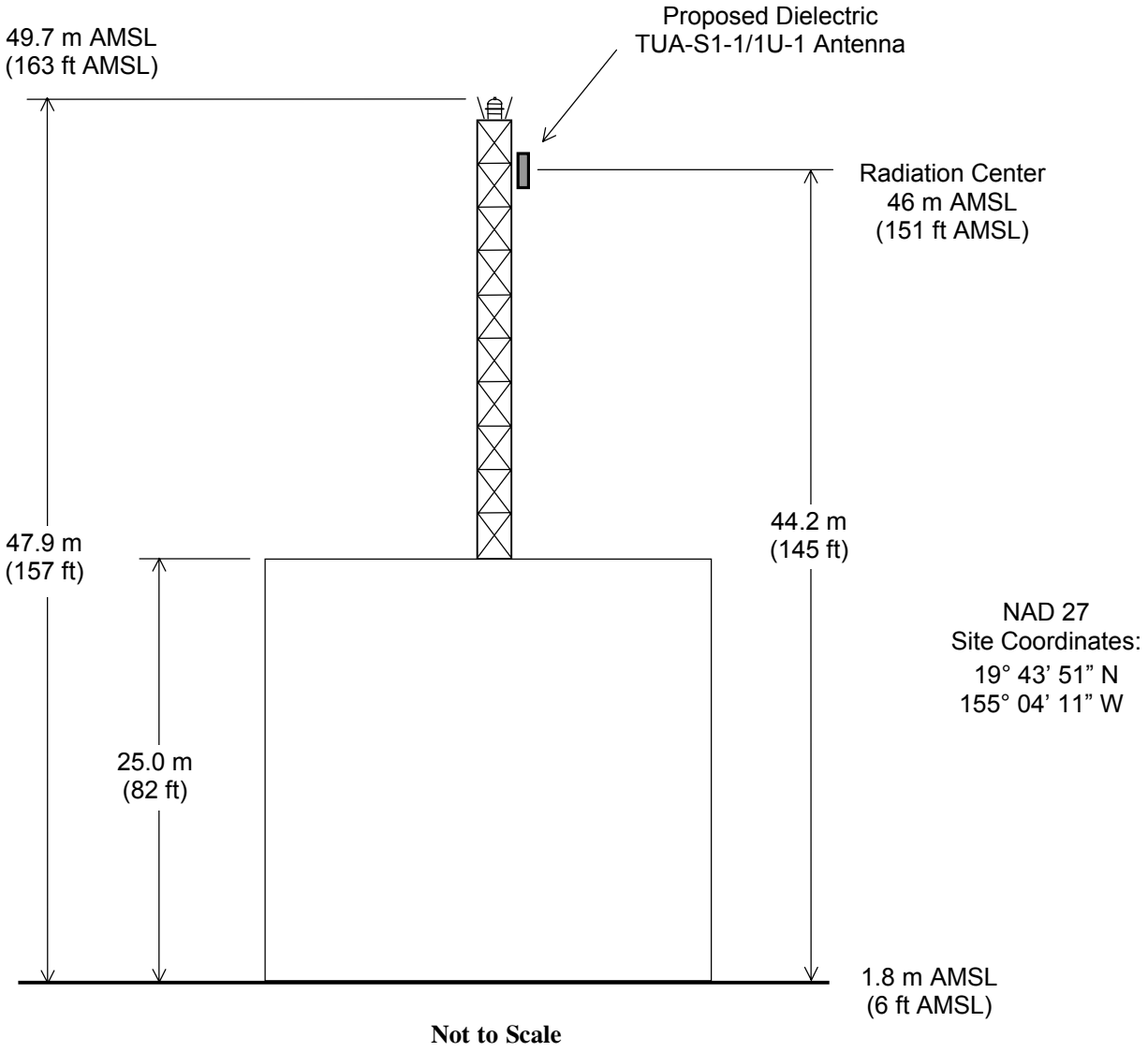
March 8, 2002

March 2002

FAA Study No. 88-AWP-1150-OE



Not to Scale

ANTENNA AND SUPPORTING STRUCTURE

STATION KHBC-DT

HILO, HAWAII

CH 22 8 KW (MAX-DA) -170 M

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

Proposal Number	**DCA-9636**		
Date	**5-Mar-02**		
Call Letters	**KHBC-DT**	Channel	**22**
Location	**Hilo, HI**		
Customer			
Antenna Type	**TUA-S1-1/1U-1**		

AZIMUTH PATTERN

Gain	**5.81**	**(7.64 dB)**	Frequency	**521.00 MHz**	
Calculated / Measured	**Calculated**		Drawing #	**TUA-S1-521**	

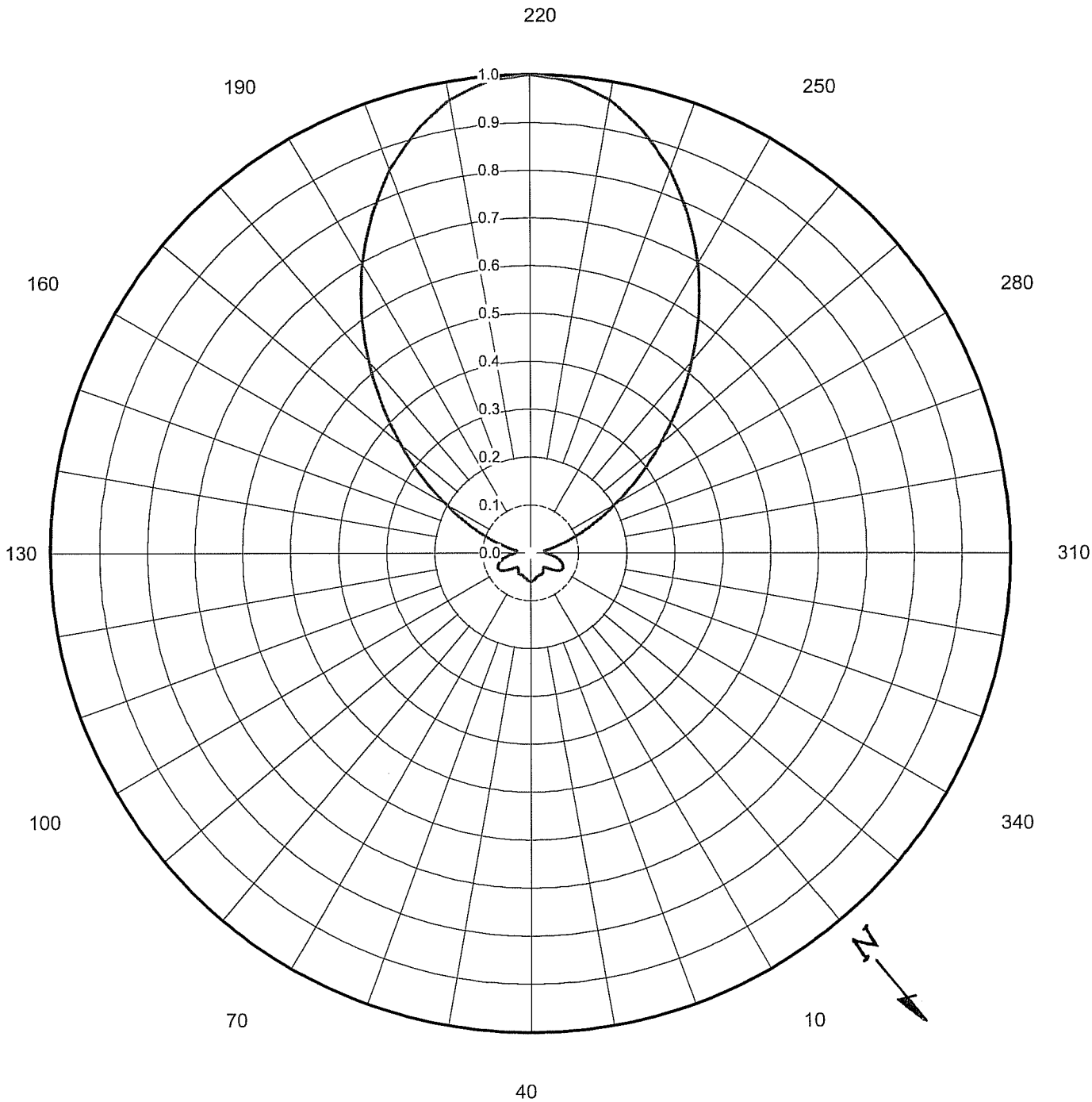
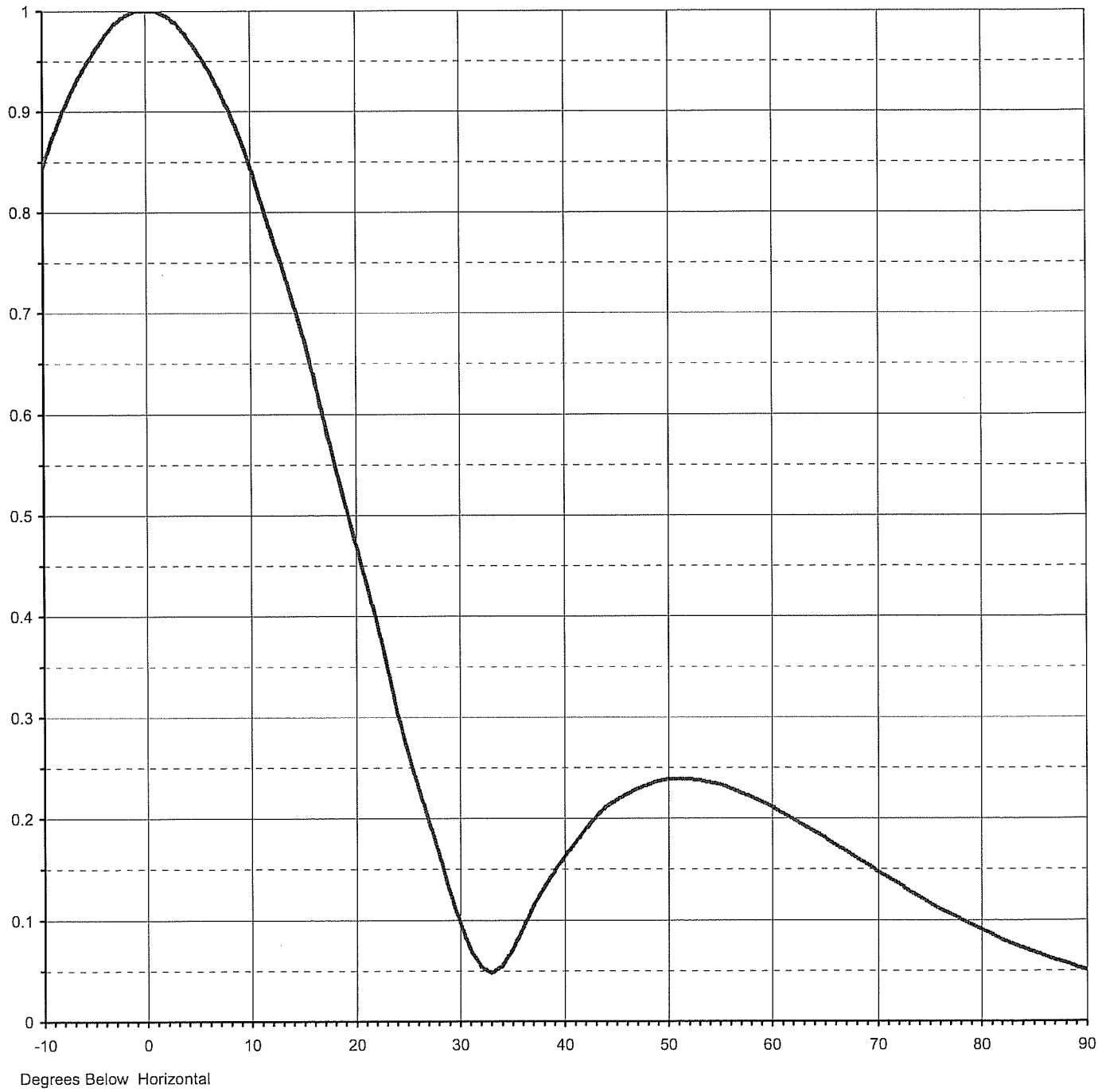


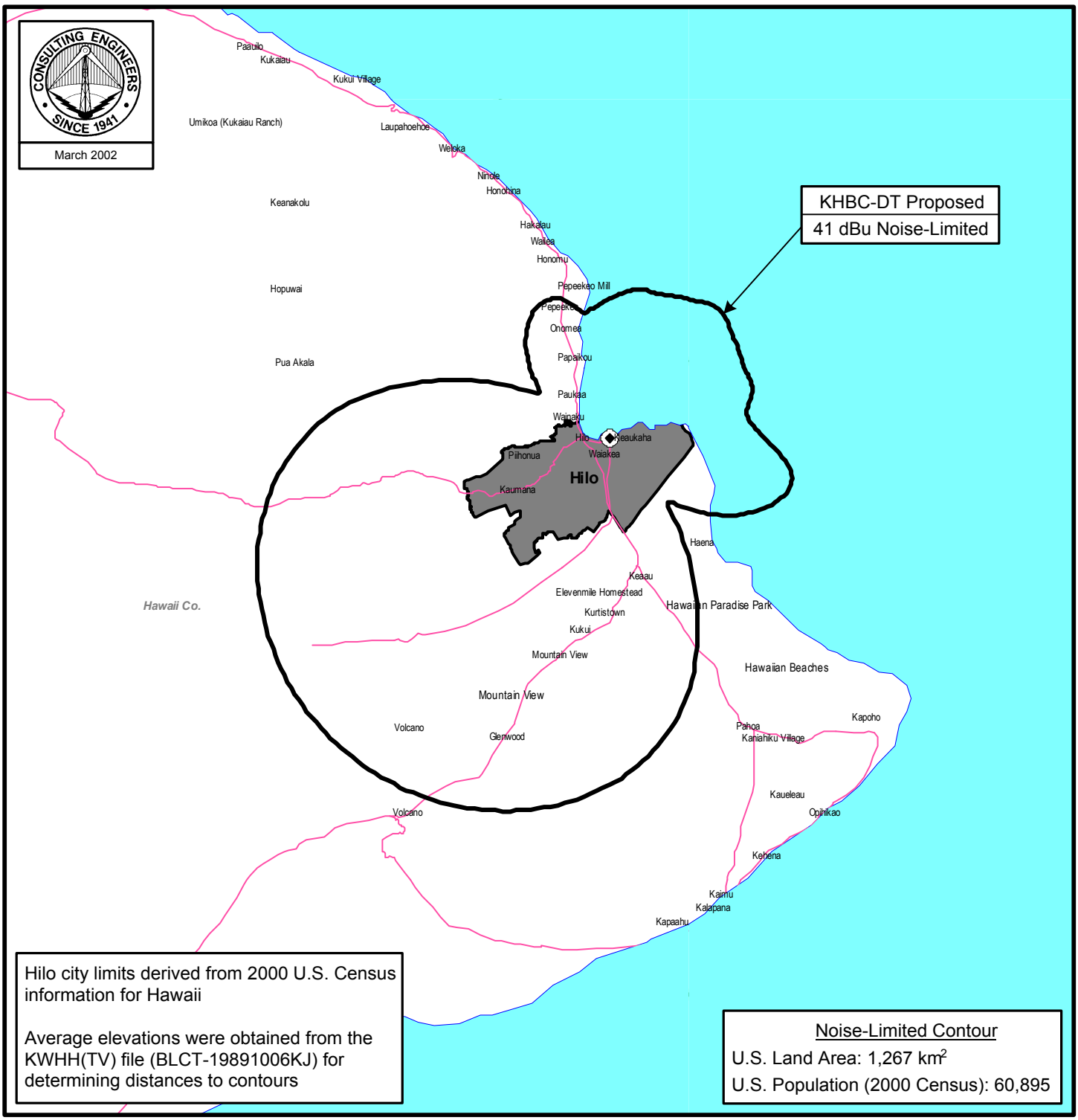
Figure 2B

Proposal Number	**DCA-9636**		
Date	**5-Mar-02**		
Call Letters	**KHBC-DT**	Channel	**22**
Location	**Hilo, HI**		
Customer			
Antenna Type	**TUA-S1-1/1U-1**		

ELEVATION PATTERN

RMS Gain at Main Lobe	**2.13**	**(3.29 dB)**	Beam Tilt **1.00 deg**
RMS Gain at Horizontal	**2.10**	**(3.22 dB)**	Frequency **521.00 MHz**
Calculated / Measured	**Calculated**		Drawing # **01U021000-S521-90**





PREDICTED F(50,90) COVERAGE CONTOURS

STATION KHBC-DT

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du Treil, Lundin & Rackley, Inc Sarasota, Florida