

ENGINEERING STATEMENT
IN SUPPORT OF AN APPLICATION TO MODIFY
CONSTRUCTION PERMIT
FOR THE PROPOSED DIGITAL TV OPERATION OF
KWNB-DT, HAYES CENTER, NEBRASKA
CHANNEL 18 11 KW 204 METERS
MARCH 2008

This engineering statement has been prepared on behalf of Pappas Telecasting of Central Nebraska, L.P., licensee of TV station KWNB-TV, Hayes Center, Nebraska, in support of its application to modify its construction permit (BPCDT-19991101AIJ) for post-transition digital TV (DTV) operation on Channel 18.

At present KWNB-TV, Facility ID Number 21162, operates its analog TV facilities on Channel 6 (82-88 MHz) with 100 kW effective radiated power (ERP) and 221 meters antenna height above average terrain (HAAT) using a non-directional TV antenna. KWNB-TV also holds a construction permit (BPCDT-19991101AIJ) to operate on Channel 18 (494-500 MHz) with 1000 kW ERP, 198 meters HAAT and a directional TV antenna. In the Seventh Report and Order (MB Docket No. 87-268) the Commission has allotted Channel 18 for the KWNB-TV's post-transition DTV operation. KWNB-TV is filing its application to modify its construction permit to operate on DTV Channel 18 with 11 kW ERP and 204 meters HAAT using a directional TV antenna.

The following information provides pertinent data for the proposed KWNB-DT operation.

Name of the Licensee:	Pappas Telecasting of Central Nebraska, L.P.
Station Location:	NE-Hayes Center
Channel:	18
Hours of Operation:	Unlimited
Transmitter:	Type Accepted
Antenna Type:	ERI, AL8-18, Directional
Beam Tilt:	1.75 deg

Antenna Coordinates:	North Latitude:	40 deg	37 min	32 sec
	West Longitude:	101 deg	01 min	45 sec
Transmitter output power:	As required to achieve authorized ERP			
Maximum effective radiated power (Average):	11.0 kW 10.40 dBk			
Elevation of site above mean sea level:	995.0 meters			
Overall height of the tower above ground:	178.8 meters			
Height of radiation center above ground (meters):	148.2 meters			
Height of radiation center above mean sea level (meters):	1143.2 meters			
Height of radiation center above average terrain (meters):	204 meters			
Antenna Structure Registration Number:	1026527			

**Response to questions for Post Transition Expedited Processing listed on the
FCC Form 301, Section III-D-DTV Engineering**

Question 1. (a)

KWNB-DT will operate its DTV facility on Channel 18 as established in 47 C.F.R.
Section 73.622.

Question 1. (d)

KWNB-DT is proposing to operate its post-transition facilities which are slightly
different than established in Appendix B of the Seventh Report and Order (MB
Docket No. 87-268). The proposed noise-limited service contour does not extend in
any direction beyond that established by Appendix B of the Seventh Report and
Order in MB Docket 87-268.

Question 1. (e)

The population within the proposed DTV service area would be 29,249 compared to the predicted population of 76,000 defined in the new DTV Table Appendix B.

Question 2.

The attached environmental statement demonstrates that there will not be any significant environmental impact from the proposed DTV operation in accordance with 47 C.F.R. Section 73.1307.

Question 3.

The attached map shows the proposed KWNB-DT contour will encompass the allotted principal community of Hayes Center, Nebraska.

Question 4.

The proposed KWNB-DT facility complies with Section 73.1030 of the Commission's rules; therefore, notification to radio astronomy installations, radio receiving installations and FCC monitoring stations is not required.

Question 5.

The existing KWNB-DT tower is registered (ASR No. 1026527) by the Commission and no changes are proposed to require a change in the registration.

ENVIRONMENTAL PROTECTION ACT

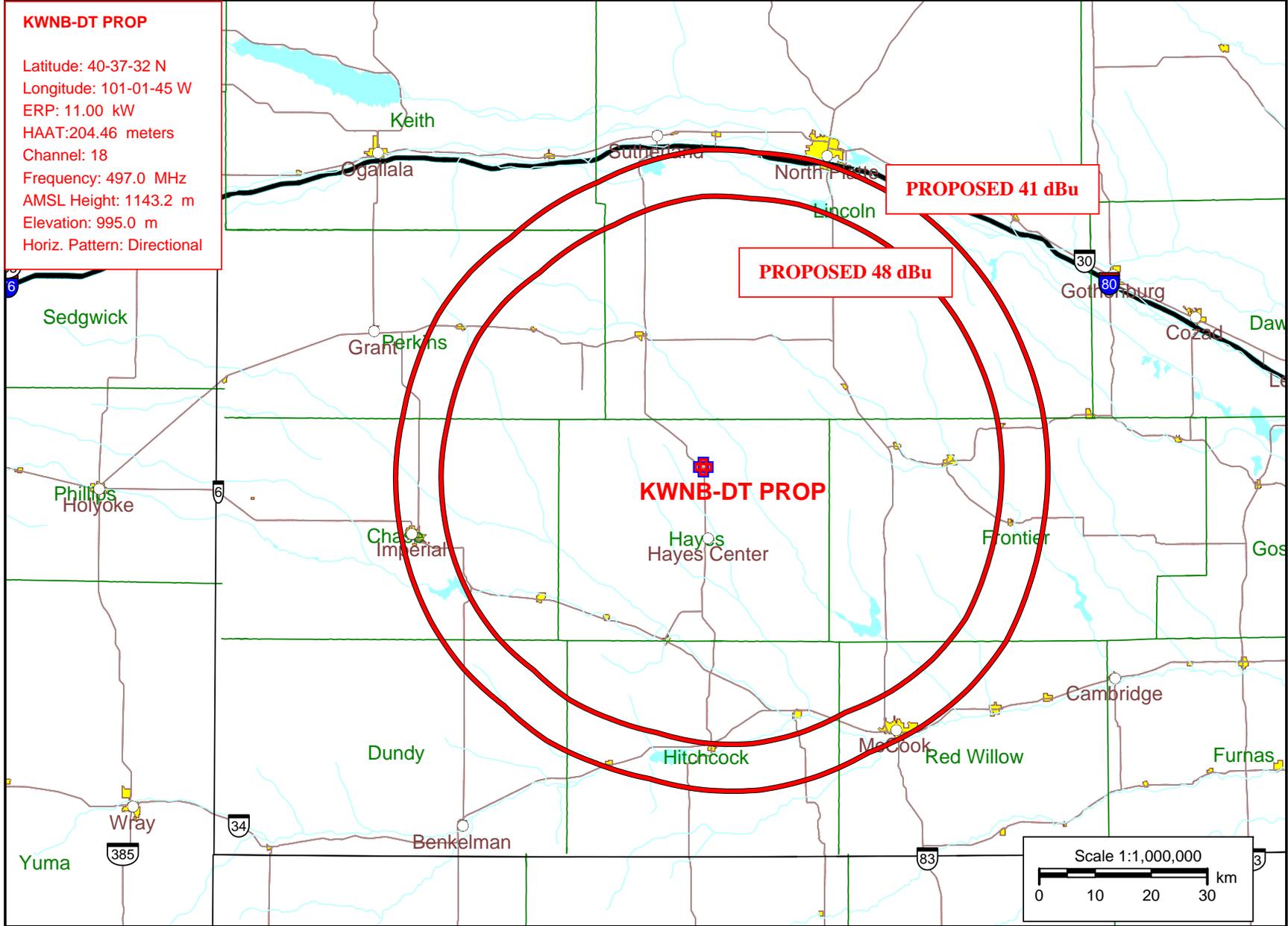
Since KWNB-TV will be using its currently licensed analog TV tower (ASR No. 1023336) for the DTV operation the environmental concerns listed in Section 1.1307(a) of the Commission's rules are not pertinent; therefore, those issues have not been addressed.

An evaluation has been made to determine compliance with the Commission's specified standards for human exposure to RF fields as set forth in the OET Bulletin No. 65 dated August 1997. For a maximum effective radiated power of 11 kW and a radiation center of 148.2 meters above ground level, the proposed Channel 18 DTV operation would have less than 4.6 microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$) RF field at 2 meters above the base of tower assuming an antenna field factor of 0.5 in the downward direction.

The Commission's guidelines for the Channel 18 TV are $1646 \mu\text{W}/\text{cm}^2$ for the occupational/controlled, and $329 \mu\text{W}/\text{cm}^2$ for the general population/uncontrolled environment.

The above analysis indicates that members of the public and personnel working around the KWNB-DT tower would not be exposed to RF fields exceeding the Commission's guidelines. With respect to work performed on the tower, KWNB-DT will establish procedures to ensure that workers are not exposed to RF fields above the Commission's guidelines, by reducing or turning off the power, as appropriate.

For the reasons stated above, it is believed this proposal complies with Section 1.1307(a) and (b) of the Commission's Rules; therefore, under Section 1.1306, it is categorically excluded from environmental processing.



COMPUTED CONTOURS FOR THE PROPOSED DIGITAL TV OPERATION OF KWNB-DT, HAYES CENTER, NEBRASKA