

ENGINEERING REPORT
Requesting a Construction Permit
for Station
WLAB(FM) - Fort Wayne, IN
Channel 202B1 (88.3 MHz)
File No. BLED-19930105KB

February 2002

Requesting a change in site and change in power to
2.4 kW @ 215 meters HAAT utilizing a Directional Antenna.

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Broadcast Engineering Consultants
Coldwater, MI 49036

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Main Studio Location

- Exhibit 13.1 - Copy of Antenna Structure Registration
- Exhibit 13.2 - Vertical Plan of Antenna System and Support Tower
- Exhibit 13.3 - Tabulation of Population and Area Served
- Exhibit 13.4 - Tabulation of Operating Conditions
- Exhibit 13.5 - Present and Proposed Contour Study

Interference Requirements

- Contour Overlap Requirements** (none)
- Spacing Requirements** (none)
- Grandfathered Short-Spaced Requirements** (none)
- Contour Protection Requirements**
 - Exhibit 17.1 - Allocation Study for Channel 202B1
 - Exhibit 17.2 - Directional Pattern Study
 - Exhibit 17.3 - Contour Study Towards WEAX, Angola, IN
 - Exhibit 17.4 - Contour Study Towards WBCJ, Spencerville, OH
- TV Channel 6 Protection Requirements** (see Exhibit 17.1)

RF Radiation Study Requirement

- Exhibit 22.1 - RF Radiation Study

(Exhibit Numbering is in response to FCC Online Form 340, Section VII)

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DISCUSSION OF REPORT

This firm was retained to prepare the required engineering report in support of a minor change application to the licensed facilities of WLAB(FM), File No. BLED-19930105KB. WLAB(FM) operates on FM Channel 202B1; 88.3 MHz, and serves the community of Fort Wayne, IN. WLAB(FM) proposes to relocate to a new site utilizing a directional pattern. Currently WLAB(FM) operates with 7.0 kW at 104 m HAAT. This application proposes 2.4 kW at 215 m HAAT.

The antenna proposed in this application will be located on the existing tower bearing Antenna Structure Registration No. 1034986. A copy of ASR for this structure has been included as **Exhibit 13.1**. The proposed antenna will not change the overall height of the tower, therefore the FAA need not be notified. The vertical plan for the proposed support tower has been designated as **Exhibit 13.2**. The coordinates of the existing tower will remain unchanged. A topographical map for ASR No. 1034986, which is a matter of public record will be supplied to the Commission upon request.

The present and proposed 1.0 mV/m service contours have been calculated in accordance with the Rules, and the data obtained has been plotted in **Exhibit 13.5** of this report. Because at least a portion of the proposed 1.0 mV/m (60 dBu) contour will encompass the present 1.0 mV/m (60 dBu) contour, pursuant to §73.3573(a)(1), this construction permit qualifies as a minor change.

The antenna HAAT has been calculated using the NGDC digitized 03-arc second database furnished by V-Soft™ Communications.

Exhibit 17.1 is an allocation study for WLAB(FM). The station, operating as proposed, would **not** create or receive overlap to any other full service station. There are two (2) stations close enough to the transmitter site to require further study. Contour protections for the stations have been supplied as **Exhibit(s) 17.3 to 17.4**. It is believed there is sufficient clearance to preclude the need for further study with respect to the other stations shown in the tabulation. Information concerning the directional pattern to be employed has been included in **Exhibit 17.2**.

The remainder of the information in this report is responsive to the Rules of the Commission, and provides the data for FCC Form 340, Section VII.

The FM Broadcast facility proposed in this application will not result in human exposure to radiofrequency radiation in excess of the applicable safety standards specified in §1.1310 of the Commission's rules. An RF Radiation Study has been supplied as **Exhibit 22.1**.

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DISCUSSION OF REPORT (continued)

DISTANCES TO CONTOURS: The table below shows the distances to 1.0 mV/m contour from the proposed facility using an ERP of 2.4 kW at an HAAT of 215 meters. These distances have been calculated based on the FCC F(50-50) curves.

Munn-Reese, Inc. - Coldwater, MI 49036							
N. Lat. = 41 06 33 W. Lng. = 85 11 42							
HAAT and Distance to Contour - FCC Method - 03 Arc Sec.							
Azi.	AV EL	HAAT	kW	dBk	Field	60 .5	70 .5
000	258.0	204.0	.0778	-11.09	.180	13.79	7.76
045	243.3	218.7	.1561	-8.07	.255	17.14	9.68
090	237.2	224.8	1.1871	0.74	.703	28.26	16.15
135	238.7	223.3	2.4000	3.80	1.000	33.29	19.36
180	234.5	227.5	2.4000	3.80	1.000	33.60	19.54
225	249.0	213.0	2.4000	3.80	1.000	32.49	18.92
270	257.9	204.1	2.3999	3.80	1.000	31.76	18.52
315	258.8	203.2	.3804	-4.20	.398	20.71	11.60
Ave El= 247.18 M HAAT= 214.82 M AMSL= 462							

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