

## **ENGINEERING REPORT**

Requesting a Minor Modification to  
Construction Permit File No.  
BPED-20020312AAB  
for Station  
WLAB(FM) - Fort Wayne, IN  
Channel 202B1 (88.3 MHz)

April, 2003

Requesting a change in site and change in power to  
3.2 kW @ 185 meters HAAT utilizing a Directional Antenna.

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Broadcast Engineering Consultants  
Coldwater, MI 49036

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## **Interference Requirements**

### **Contour Overlap Requirements - §73.509**

Exhibit 15.1 - Allocation Study for Channel 202B1  
Exhibit 15.2 - Directional Pattern Study  
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**Spacing Requirements - §73.207** (Does Not Apply)

**Grandfathered Short-Spaced Requirements - §73.213** (Does Not Apply)

**Contour Protection Requirements - §73.215** (Does Not Apply)

**TV Channel 6 Protection Requirements - §73.525** (See Exhibit 15.1)

## **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

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This firm was retained to prepare the required engineering report in supporting a minor modification to Construction Permit BPED-20020312AAB held by WLAB (FM) Fort Wayne, IN. This construction permit authorizes a change in site location and operating parameters to 2.4 kW at 215 m HAAT using a directional antenna. WLAB (FM) is presently licensed under File No. BLED-19930105KB on FM Channel 202B1, 88.3 MHz, for 7.0 kW at 104 m HAAT using a directional antenna. This application proposes a new site location with 3.2 kW at 185 m HAAT. The proposed directional pattern is identical with the one authorized in the existing construction permit.

The antenna proposed in this application will be located on the existing tower bearing Antenna Structure Registration (ASR) No. 1030891. A copy of the ASR for this structure is 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 is designated as **Exhibit 13.2**. The coordinates of the existing tower will remain unchanged. A topographic map for ASR No. 1030891, which is a matter of public record, will be supplied to the Commission upon request.

The licensed 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, licensed 1.0 mV/m (60 dBu) contour, this application qualifies as a minor change pursuant to §73.3573(a)(1).

The antenna HAAT is calculated using the USGS digitized 03-arc second database furnished by V-Soft™ Communications.

**Exhibit 15.1** is an allocation study for WLAB (FM). The station, operating as proposed, will **not** create or receive overlap with 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 are supplied as **Exhibit(s) 15.3 to 15.4**. 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 is included in **Exhibit 15.2**.

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 3.2 kW at an HAAT of 185 meters. These distances have been calculated based on the FCC F(50-50) curves.

WLAB - Proposed						
Munn-Reese, Inc. - Coldwater, MI 49036						
N. Lat. = 41 06 13 W. Lng. = 85 11 28						
HAAT and Distance to Contour - FCC Method - 03 Arc Sec.						
Azi.	AV EL	HAAT	ERP kW	dBk	Field	60-F5
000	258.0	173.0	0.1037	-9.84	0.180	13.69
045	243.0	188.0	0.2081	-6.82	0.255	17.14
090	235.6	195.4	1.5815	1.99	0.703	28.17
135	239.1	191.9	3.2000	5.05	1.000	33.06
180	234.1	196.9	3.2000	5.05	1.000	33.48
225	243.7	187.3	3.2000	5.05	1.000	32.66
270	257.7	173.3	3.2000	5.05	1.000	31.43
315	258.1	172.9	0.5069	-2.95	0.398	20.62
Ave El= 246.17 M HAAT= 184.83 M AMSL= 431 M						

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