

### ENGINEERING STATEMENT

This engineering statement is written for WCOR, Inc., licensee of WCOR (AM), Lebanon, Tennessee, 900 kHz, 0.5 KW ND-D, 0.136 KW ND-N, a Class D station. This application is for a nighttime auxiliary antenna for WCOR.

The applicant proposes to locate the WCOR nighttime auxiliary antenna at the transmitter site of WAMB (AM), 1160 kHz, Donelson, Tennessee, and use tower #1 of WAMB's antenna system as its nighttime auxiliary antenna. A diplexer with pass/reject filters will be installed and no interference between the two signals is expected as WAMB is 260 kHz removed from the applicant's proposed operation on 900 kHz.

WAMB's tower #1 is 120.1 meters in height above base insulator plus 31.0 meters of top loading or 151.1 meters total. At 900 kHz this antenna would be 163.3° in electrical height.

The WAMB ground system for tower #1 consists of 120 evenly spaced, buried copper wire radials 61.0 meters long. At 900 kHz this is 0.1832 wave length.

At 900 kHz WAMB's tower #1 would have an estimated efficiency of 341.2 mv/m/kw/km.

No changes in height are proposed for the WAMB registered tower #1, #1042787. It is believed that no notification is necessary to the FAA.

As WCOR is a Class D station, no nighttime signal contour coverage maps are included with this application for a nighttime auxiliary antenna system.