

File No. BL-8746 Call Letters W S P R Date 7-20-61

1. DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

DA- 2

No. and Type of Elements: **Two, self-supporting, series excited, vertical radiators.**

Height above Insulators:

Overall Height:

Spacing and Orientation: **311' (145°). Line of towers bears 85° true.**

Non-Directional Antenna: **None used.**

Ground System consists of **120-30' to 250' buried copper radials under east tower; 120-400' buried copper radials under west tower.**

2. THEORETICAL SPECIFICATIONS

East Tower

West Tower

Phasing:	Night	0°	0°
	Day	0°	0°

Field Ratio:	Night	1.0	1.0
	Day	1.0	1.0

3. OPERATING SPECIFICATIONS

Phase Indication:*	Night	-8°	0°
	Day	-8°	0°

Antenna Base Current Ratio:	Night	0.98	1.0
	Day	0.97	1.0

<u>Phase Monitor Sample</u> Current Ratio:	Night	1.0	1.0
	Day	1.0	1.0

*As indicated by Nems Clarke 108-E phase monitor

Phase indications and antenna base currents shall be read and entered in the operating log at least once each hour. Phase Monitor Sample Currents may be read and logged in lieu of base currents provided base currents are read and logged at least once daily, for each pattern.

Field measuring equipment shall be available at all times and, the field intensity at each of the monitoring points being measured at least once every seven days and an appropriate record kept of all measurements to made.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:

Direction of 60.5° true North. Proceed from WSPR Transmitter site up Union Street extended to Memorial Avenue, thence East across the Memorial Bridge. Right on Columbus Avenue to State Street. Left on State Street to Walnut Street. Thence right on Walnut Street to Cemetery Avenue - Entrance of Springfield Cemetery. Right on Cemetery Avenue approximately .2 miles to the Chapel. The monitor Point is located on road between the Big Monument and Chapel. Distance from antenna 1.66 miles. The field intensity measured at this point should not exceed 45 mv/m Night; 30.6 mv/m Day.

Direction of 275° true North. Proceed from WSPR Transmitter site up Union Street extended to Memorial Avenue, thence west to Agawan Bridge. Right up Springfield Street to O'Briens Corner. Right on Maple Street to Tower Terrace, thence right to Dead End of Tower Terrace House No. 46. Distance from antenna 1.6 miles. The field intensity measured at this point should not exceed 52.5 mv/m Night; 110 mv/m Day.