

FCC Form 353-A
June 1980

File No.: BMP-890508AD

Call Sign: KNWX

1. DESCRIPTION OF DIRECTIONAL ANTENNA SYSTEM

No. and Type of Elements: Three (3), guyed, series-excited, steel radiators of uniform cross section. Theoretical RMS: 2167 mV/m/km, day; 724.2 mV/m/km, night. Standard RMS: 2276.56 mV/m/km, day; Augmented RMS: 762.4 mV/m/km, night. Q factor: 70.71, day; 22.36, night.

Height above Insulators: 121.9 m (113°)

Overall Height: 124 m

Spacing and Orientation: Towers are spaced 97.5° apart on a bearing of 303° True.

Non-Directional Antenna: None Authorized

Ground System consists of 120 buried copper radials extending 107 meters long except where foreshortened at the property boundary.

2. THEORETICAL SPECIFICATIONS

Towers: #1(C) #2(NW) #3(SE)

Phasing: Night: 51.7° 0° 144.1°
Day: -30.4° 0° -50.3°

Field Ratio: Night: 0.685 1.0 0.658
Day: 0.431 1.0 0.460

3. OPERATING SPECIFICATIONS

Phase Indication*:

Night: 69.9 0° 137.4°
Day: -33.2° 0° -38.6°

Antenna Base

Current Ratio:

Night: 0.884 1.000 0.761
Day: 0.333 1.000 0.602

Antenna Monitor Sample

Current Ratio:

Night: 0.905 1.000 0.763
Day: 0.353 1.000 0.631

*As indicated by Potomac Instruments Type 1901 Antenna Monitor.

Antenna sampling system approved under Section 73.68 (b) of the Rules.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:

Direction of 123° True North. From the KNWX transmitter driveway turn left onto Dockton Road SW and proceed south 0.56 km (0.35 mi) to SW 240th Street. Turn left on SW 240th Street and go east. It will join SW Pt. Robinson Road. Continue east to the intersection with 59th Avenue SW. Turn right and proceed south on 59th Avenue SW to SW 244th Street. Turn left and go east on SW 244th Street 0.24 km (0.15 mi) to where a dirt road (overgrown) with a cable gate leads south. Monitor point is 0.19 km (0.12 mi) south of SW 244th Street, 10 feet southwest of road and is identified by a steel stake. The field intensity measured at this point should not exceed 600.84 mV/m, Daytime.

Direction of 273° True North. From the KNWX transmitter building, turn right onto Dockton Road SW and proceed north 1.4 km (0.9 mi) to the intersection with Quatermaster Drive. Turn left onto Quatermaster Drive and proceed west to the intersection with Vashon Highway SW. Turn left onto Vashon Highway Sw and proceed south to the intersection with SW 288th Street. Turn right on SW 288th Street and proceed to the top of the hill where SW 228th Street curves to the left and becomes 107th SW. Continue south on 107th SW to the intersection with SW 232nd Street. Turn right and go west 1.6 km (1.0 mi) on SW 232nd Street to Old Mill Road. Point is located on the east side of Old Mill Road, 16.2 meters (53 feet) south of SW 232nd Street. The field intensity measured at this point should not exceed 106.75 Daytime.

Direction of 333° True North. From the KNWX transmitter building, turn right onto Dockton Road SW and proceed north. Dockton Road SW will curve to the left and become SW Ellisport Drive, which will become SW 204th Street at the top of the hill. Continue west on SW 204th Street to the intersection with Vashon Highway Sw. Turn right and proceed north 3.7 km (2.3 mi) to the intersection with Cove Road SW. Turn left on Cove Road SW and proceed west 1.6 km (1.0 mi) to 115th Avenue SW. Turn right on 115th Avenue SW and proceed north to SW 160th Street. Turn right on SW 160th Street and proceed east 0.40 km (0.25 mi). The point is located on the north side of the road in line with the east edge of the Vashon Municipal Airport runway. The field intensity measured at this point should not exceed 39.4 mV/m, Daytime.

Direction of 59° True North. From the KNWX transmitter building turn right onto Dockton Road SW and proceed north 0.8 km (0.5 mi) to Pt. Robinson Road. Turn right on Pt. Robinson Road and proceed east 1.1 km (0.7 mi) to Luana Beach Road. Turn left on Luana Beach Road and proceed 0.75 km (0.47 mi) to 60th Place SW which is a private driveway. Turn left and proceed north 0.45 km (0.28 mi) to end where there is a loop in the driveway in the front yard of 23010 Luana Beach Road. Point is located on the north side of the driveway, north of the loop center. The field intensity measured at this point should not exceed 71.77 mV/m, Nighttime.

DESCRIPTION OF AND FIELD INTENSITY AT MONITORING POINTS:

Direction of 187° True North. From the KNWX transmitter building turn left onto Dockton Road SW and proceed south 0.8 km (0.5 mi). When Dockton Road SW curves to the right continue south (straight) along 75th Avenue SW. Continue on 75th Avenue SW past the first intersection with Gold Beach Drive SW and the second intersection with Gold Beach Drive SW. Continue through this intersection to 26024 75th Avenue Sw. Point is near the cable TV box on the south side of the street. The field intensity measured at this point should not exceed 31.3 mV/m, Nighttime.

Direction of 303° True North. From the KNWX transmitter building turn right onto Dockton Road SW and proceed north. Dockton Road will curve to the left and become SW Ellisport Road, which will become SW 204th Street at the top of the hill. Continue west on SW 204th Street through the intersection with Vashon Highway SW. 1.2 km (0.75 mi) west of this intersection SW 204th Street will appear to curve to the left, but continue straight along SW 204th Street to 1203 SW 204th Street. Point is located 7.6 meters (25 feet) west of the driveway on the south side of SW 204th Street. The field intensity measured at this point should not exceed 106.16 mV/m, Nighttime.