FAIRFIELD INDUSTRIES

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Reference: Call Sign KA2XFC

Calculation of Power Density used by Fairfield's Telecommand System

Vertical Polarization

Maximum effective radiated power in horizontal direction	100 Watts
Minimum height of gain antenna above ground level	15 Meters ≡ 1500 cm
Attenuation in downward direction, from attached antenna vertical radiation chart pattern	20 dB
Maximum effective radiated power in vertical direction	100 Watts - 20 dB ≡ 1 Watt

Using the worst case approximation, equation (3) on page 8 of OST Bulletin No. 65, Dated October 1985.

$$S = \frac{EIRP}{\pi * R^2} = \frac{1}{\pi * 1500^2} \equiv .142 \text{ microwatts/cm}^2$$

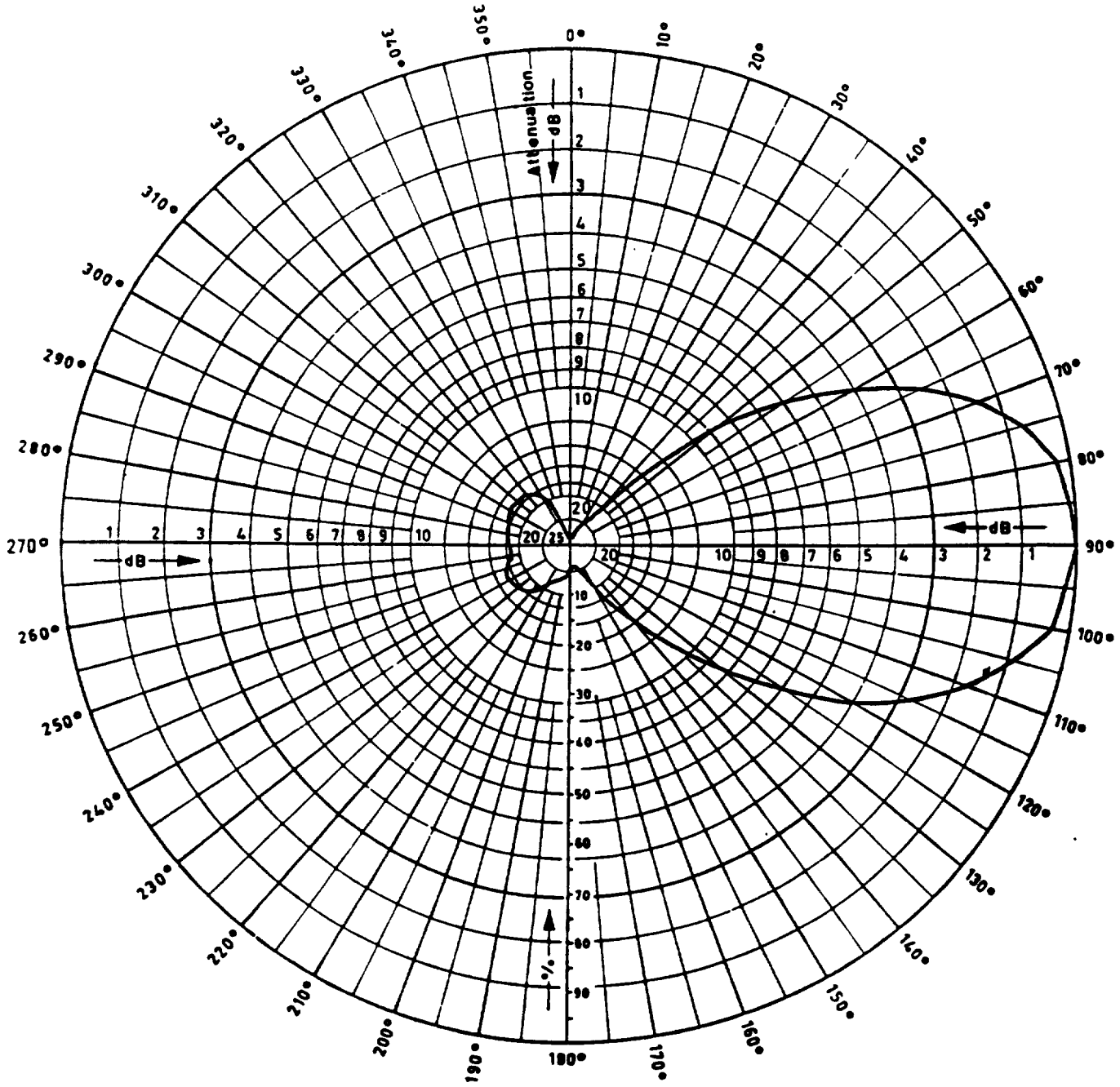
The conclusion is that this system will not have any significant environmental impact should the Commission grant this application.

Signed: Dudley Shepherd

Dudley Shepherd
Authorized Representative of Fairfield Industries

Dated: December 8, 1993

NOVEMBER 16, 1988 PATTERN NUMBER 2202



SCALA 2CA5-450VH YAGI ARRAY
MAXIMUM ARRAY GAIN: 12.5 dBd
VERTICAL POLARIZATION
HORIZONTAL STACK
VERTICAL PLANE PATTERN

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