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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 20 dB
(from attached antenna vertical radiation chart pattern)

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:

$$S = \frac{EIRP}{\pi * R^2} = \frac{1}{\pi * 1500^2} \equiv 0.142 \text{ microWatts/cm}^2$$

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

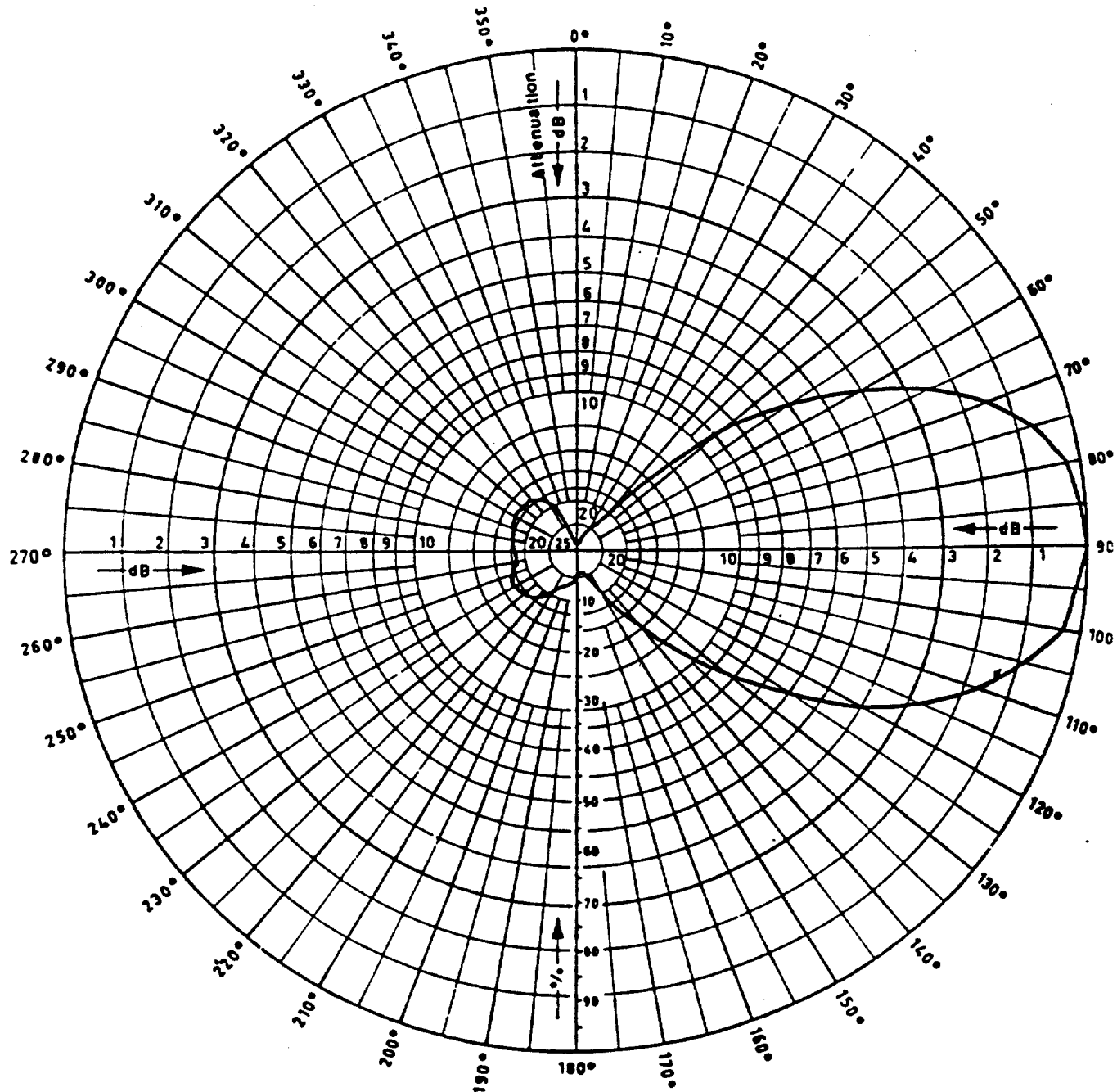
Signed: *Dudley Shepherd*

Dudley Shepherd
Authorized Representative of Fairfield Industries

Dated: January 23, 1996

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PATTERN NUMBER 2202



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

SCALA

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