Table II

Computation of Signal Level on the Ground from Proposed CH 293D Translator Derby, Connecticut

August, 2003

Depression Angle, Degrees	Relative Field	ERP Watts	dBk	Distance to the Ground in Kilometers	Free Space Signal	dB Loss for Reflection	Signal Strength dBu
90	0.033	0.0109	-49.6	0.0530	82.8	2.47	80.3
85	0.041	0.0168	-47.7	0.0532	84.7	2.47	82.2
80	0.054	0.0292	-45.4	0.0538	86.9	2.47	84.5
75	0.073	0.0533	-42.7	0.0549	89.4	2.47	86.9
70	0.092	0.0846	-40.7	0.0564	91.2	2.47	88.7
65	0.110	0.1210	-39.2	0.0585	92.4	2.47	89.9
60	0.121	0.1464	-38.3	0.0612	92.8	2.47	90.4
55	0.118	0.1392	-38.6	0.0647	92.1	2.47	89.7
50	0.094	0.0884	-40.5	0.0692	89.6	2.47	87.1
45	0.046	0.0212	-46.7	0.0750	82.7	2.47	80.2
40	0.032	0.0102	-49.9	0.0825	78.7	2.47	76.2
35	0.142	0.2016	-37.0	0.0924	90.7	2.47	88.2
30	0.279	0.7784	-31.1	0.1060	95.3	2.47	92.9
25	0.436	1.9010	-27.2	0.1254	97.7	2.47	95.3
20	0.600	3.6000	-24.4	0.1550	98.7	2.47	96.2
15	0.759	5.7608	-22.4	0.2048	98.3	2.47	95.8
10	0.889	7.9032	-21.0	0.3052	96.2	2.47	93.7
5	0.972	9.4478	-20.2	0.6081	91.0	2.47	88.5

Notes:

Antenna radiation center above ground (meters): 53

Maximum ERP (watts) at 0° Depression angle: 10

Free Space Signal = 106.92 -20*log(distance in km) + dBk

Relative field based on 3 bay half wavelength interbay spacing antenna.