

# **Exhibit 10**

## **Interference Analysis Overlap Requirements**

According to CFR 47 §74.1204(a), translators are required to protect all existing FM stations from interference due to overlap of the protected contours of the existing stations with the interfering contours of the new translators.

### **US Stations**

In the attached tabular printout, only 149878 and the facility being modified have outgoing contour overlaps from the proposed translator, so no interference to other stations is anticipated. Incoming overlap is not prohibited. The VSoft maps show no contour overlap.

149878 is third adjacent to the proposed translator, and, according to §74.1204(d),

**"The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water. In addition, an application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to ... lack of population ... ."**

The F(50,50) signal from 149878 at the transmit site is 59.72 dBu (from the contour protection tabulation). A 40 dB ratio of undesired to desired signal strength gives an allowable interfering F(50,10) field strength of 99.72 dBu.

The spreadsheet on the next page shows that this contour is at the lowest 23.51 m (77 ft) AGL. There are no nearby buildings over 1 story high (15 ft).

Hence §74.1204(d) quoted above applies (no population), and the predicted area of interference is acceptable to the Commission.

# Exhibit 12

IN Bremen

*Freespace Interference Study based on Vertical Radiation Pattern  
Nicom BKG77/2H - 2 bay half wave spaced*

Depression Angle from Antenna	Antenna Relative Field	ERP Watts	ERP dBk	Distance to Ground from Antenna (m)	Free Space Signal (dBu)	dB Loss for Reflection	Signal Strength at Ground (dBu)	Circular Distance From Tower (m)	Distance to Contour using Free Space (m)	Height of Contour above Ground (m)
90	0.001	0.000	-78.86	105.00	47.64	0	47.64	0.00	0.26	104.74
85	0.001	0.000	-78.86	105.40	47.60	0	47.60	9.19	0.26	104.74
80	0.007	0.001	-61.96	106.62	64.40	0	64.40	18.51	1.83	103.20
75	0.019	0.005	-53.29	108.70	72.91	0	72.91	28.13	4.96	100.21
70	0.040	0.021	-46.82	111.74	79.14	0	79.14	38.22	10.45	95.18
65	0.073	0.069	-41.59	115.85	84.05	0	84.05	48.96	19.07	87.72
60	0.120	0.187	-37.28	121.24	87.97	0	87.97	60.62	31.34	77.86
55	0.176	0.403	-33.95	128.18	90.81	0	90.81	73.52	45.97	67.34
50	0.247	0.793	-31.01	137.07	93.17	0	93.17	88.11	64.52	55.58
45	0.330	1.416	-28.49	148.49	95.00	0	95.00	105.00	86.20	44.05
40	0.423	2.326	-26.33	163.35	96.32	0	96.32	125.13	110.49	33.98
35	0.523	3.556	-24.49	183.06	97.18	0	97.18	149.96	136.61	26.65
30	0.624	5.062	-22.96	210.00	97.52	0	97.52	181.87	162.99	23.51
25	0.723	6.795	-21.68	248.45	97.34	0	97.34	225.17	188.85	25.19
20	0.814	8.614	-20.65	307.00	96.53	0	96.53	288.49	212.62	32.28
15	0.891	10.320	-19.86	405.69	94.89	0	94.89	391.87	232.73	44.77
10	0.950	11.733	-19.31	604.67	91.98	0	91.98	595.48	248.14	61.91
5	0.987	12.664	-18.97	1204.74	86.33	0	86.33	1200.16	257.80	82.53

Distance to Ground Level assumes flat ground or a site where the site level is above average terrain in all azimuths.

Maximum ERP	13 watts	Max dBu at Ground Level	97.52	Lowest Height of Contour (m)	23.51
Radiation Center AG	105 m			Lowest Height of Contour (ft)	77.12
Radiation Center AG	344 ft.				
Maximum ERP	-18.86 dBk				
Protected dBu	59.72 dBu				
Interfering dBu	99.7 dBu				
Free Space Distance	261.20 m				