

12530 OLEAN ROAD
CHAFFEE, NY 14030
716-496-8238
FAX 716-496-8247



100 STRADTMAN STREET
BUFFALO, NY 14206
716-892-2900
FAX 716-892-2983

LETTER of EXPLANATION

Date: 3/9/2009
Reference No.: 4838720
File No.: 0033564697
Call Sign: WPOY233

Re: CANISIUS COLLEGE DEPARTMENT OF PUBLIC SAFETY

To whom it may concern:

In response to Canada's most recent harmful interference anticipation (HIA) letter dated 2/28/09 for the above referenced application, a directional antenna has been utilized to reduce the effects of propagation toward the 2 areas (London & Toronto, Ontario) of concern.

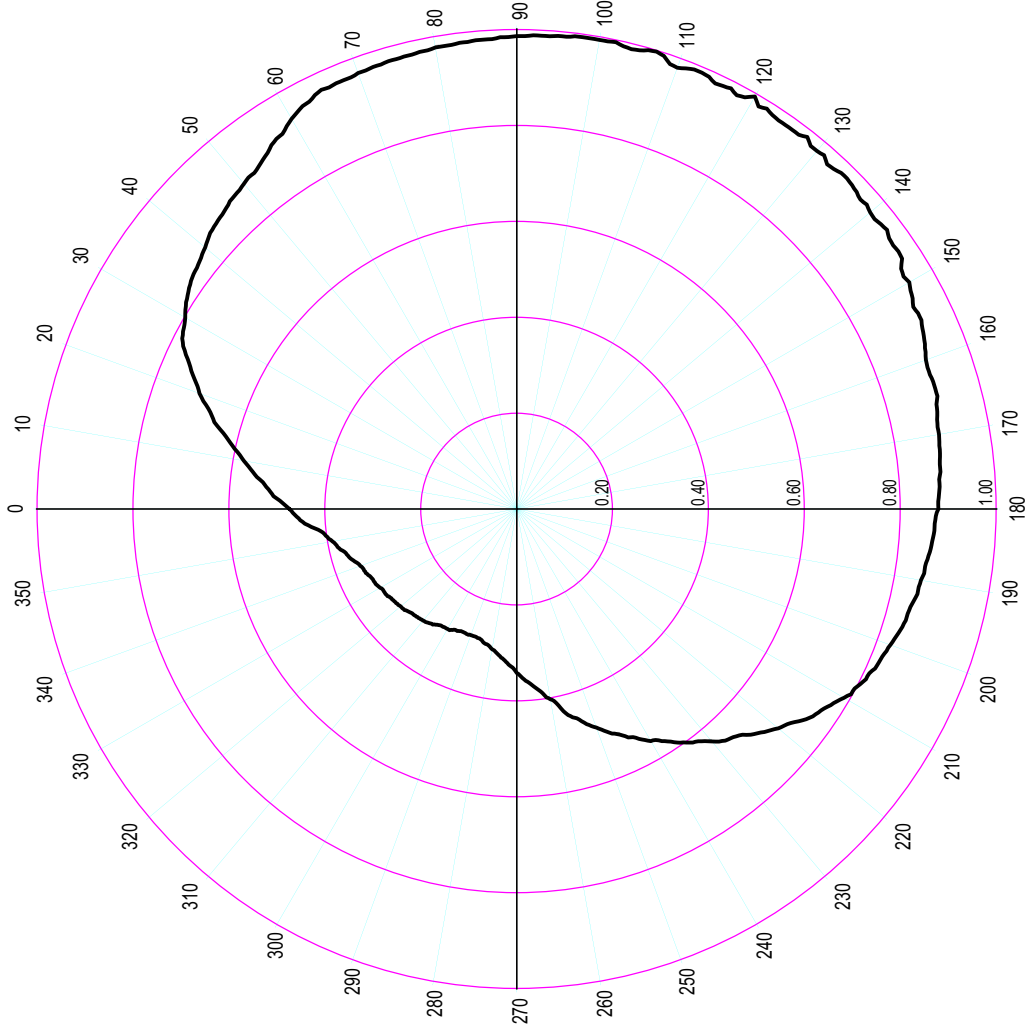
Using a Sinclair SRL310C4NM antenna with ¼ wave spacing on the exposed dipoles the maximum ERP from the above referenced antenna produces a maximum ERP of less than 3.24 watts from 260 degrees to 350 degrees. Setting the azimuth of the main lobe of this antenna at 120 degrees from north produces the following maximum ERP propagation in watts towards the Canadian border areas of concern:

<u>Deg.</u>	<u>ERP-w</u>	<u>Deg.</u>	<u>ERP-w</u>	<u>Deg.</u>	<u>ERP-w</u>
260.0	3.240	295.0	1.575	330.0	2.160
265.0	2.717	300.0	1.666	335.0	2.253
270.0	2.334	305.0	1.736	340.0	2.402
275.0	1.980	310.0	1.844	345.0	2.687
280.0	1.760	315.0	1.893	350.0	3.035
285.0	1.598	320.0	1.992		
290.0	1.564	325.0	2.069		

Please refer to the attached antenna propagation file labeled (SRL310C4.pdf) at 120 degrees for the antenna manufacturer's actual ERP results. Given the above results from using the directional antenna I respectfully ask for reconsideration of the referenced application regarding the anticipated harmful interference.

Cordially,

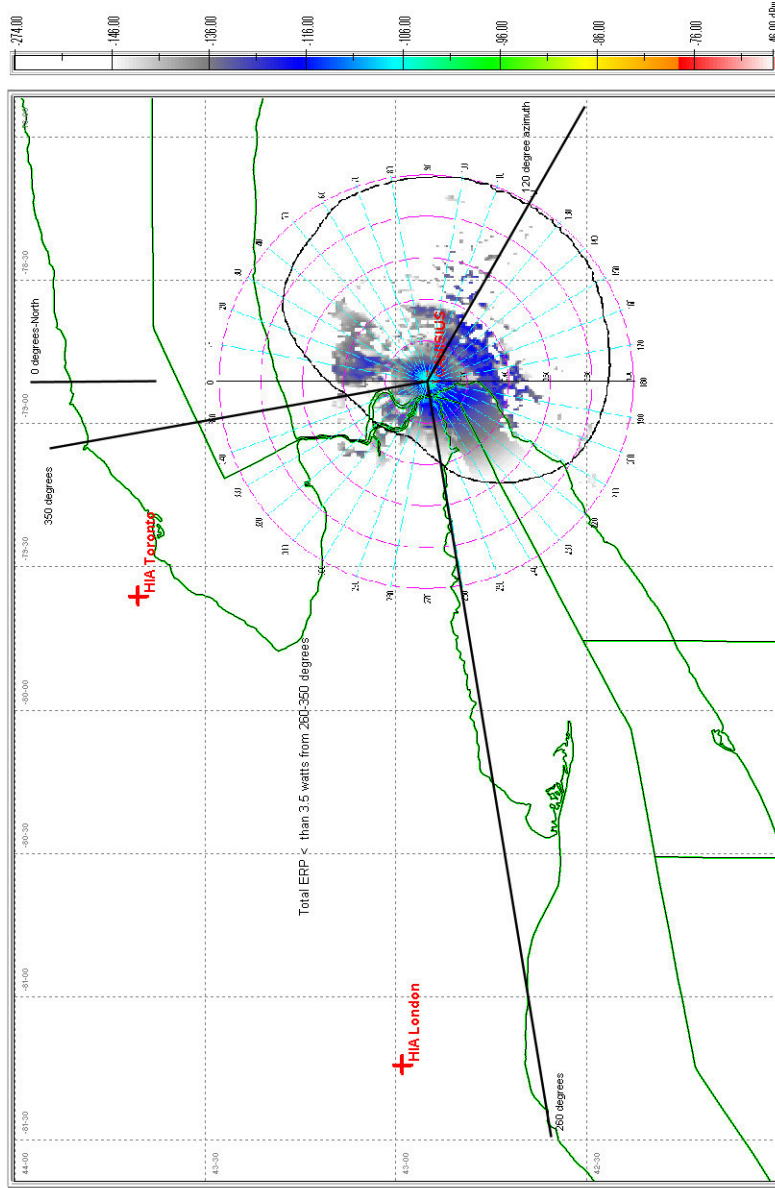

Michael A. Saia
Vice President



Azim	RelFS	ERP [W]	dBk
0.0	0.474	4.483	-23.484
5.0	0.524	5.479	-22.613
10.0	0.578	6.666	-21.761
15.0	0.640	8.173	-20.876
20.0	0.704	9.889	-20.049
25.0	0.761	11.555	-19.372
30.0	0.798	12.706	-18.960
35.0	0.829	13.712	-18.629
40.0	0.848	14.348	-18.432
45.0	0.868	15.033	-18.230
50.0	0.885	15.627	-18.061
55.0	0.906	16.378	-17.857
60.0	0.939	17.593	-17.547
65.0	0.964	18.542	-17.318
70.0	0.967	18.657	-17.291
75.0	0.971	18.812	-17.256
80.0	0.977	19.045	-17.202
85.0	0.981	19.202	-17.167
90.0	0.986	19.398	-17.122
95.0	0.990	19.556	-17.087
100.0	0.993	19.674	-17.061
105.0	0.990	19.556	-17.087
110.0	0.979	19.123	-17.184
115.0	0.979	19.123	-17.184
120.0	0.993	19.674	-17.061
125.0	0.977	19.045	-17.202
130.0	0.974	18.929	-17.229
135.0	0.974	18.929	-17.229
140.0	0.962	18.465	-17.336
145.0	0.958	18.312	-17.373
150.0	0.945	17.818	-17.491
155.0	0.931	17.294	-17.621
160.0	0.908	16.450	-17.838
165.0	0.908	16.450	-17.838
170.0	0.894	15.947	-17.973
175.0	0.887	15.698	-18.042
180.0	0.879	15.416	-18.120

Azim	RelFS	ERP [W]	dBk
185.0	0.868	15.033	-18.230
190.0	0.856	14.620	-18.351
195.0	0.844	14.213	-18.473
200.0	0.829	13.712	-18.629
205.0	0.811	13.123	-18.820
210.0	0.788	12.389	-19.069
215.0	0.754	11.343	-19.453
220.0	0.712	10.115	-19.950
225.0	0.666	8.850	-20.531
230.0	0.633	7.995	-20.972
235.0	0.595	7.064	-21.510
240.0	0.559	6.235	-22.052
245.0	0.521	5.416	-22.663
250.0	0.485	4.693	-23.285
255.0	0.450	4.040	-23.936
260.0	0.403	3.240	-24.894
265.0	0.369	2.717	-25.659
270.0	0.342	2.334	-26.319
275.0	0.315	1.980	-27.034
280.0	0.297	1.760	-27.545
285.0	0.283	1.598	-27.964
290.0	0.280	1.564	-28.057
295.0	0.281	1.575	-28.026
300.0	0.289	1.666	-27.782
305.0	0.295	1.736	-27.604
310.0	0.304	1.844	-27.343
315.0	0.308	1.893	-27.229
320.0	0.316	1.992	-27.006
325.0	0.322	2.069	-26.843
330.0	0.329	2.160	-26.656
335.0	0.336	2.253	-26.473
340.0	0.347	2.402	-26.193
345.0	0.367	2.687	-25.707
350.0	0.390	3.035	-25.179
355.0	0.430	3.689	-24.331

20 W ERP File # 0003564697 using SR01003 at 120 degrees



SD314-H

4 dipole antenna, 8.0/8.5 dBd gain, HD, 370-512 MHz

- Covers 370-512 MHz in 2 band splits
- 8.0 dBd gain in elliptical (bi-directional) pattern (1/2wave), 8.5 dBd gain offset pattern (1/4wave)
- Heavy duty, 175mph/282kph survival wind rating and 150W power handling

Electrical Specifications

Bandwidth	MHz	106
Frequency range	MHz	370 to 512
Gain	dBd (dBi)	8.5 (10.6)
Pattern		offset/bi-directional
Input VSWR (max)		1.5:1
Polarization		vertical
Vertical beamwidth	degrees	16
Electrical tilt	degrees	0,2,4,6,8,10
Average power input (max)	W	150
Lightning protection		DC ground

Mechanical Specifications

Height	in (mm)	114 (2896)
Connector		N (male)
Width	in (mm)	16 (406)
Depth	in (mm)	3.5 (89)
Weight	lbs (kg)	21 (9.5)
Mounting hardware		clamps not supplied
Shipping dimensions	in (mm)	116x19x4 (2946x483x102)

Environmental Specifications

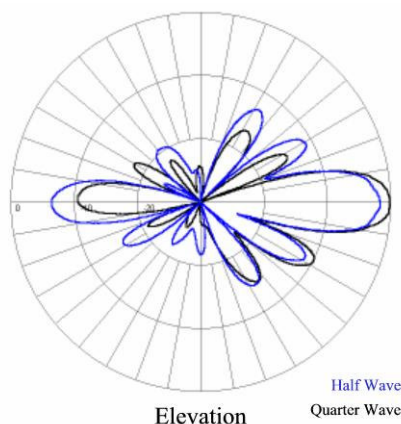
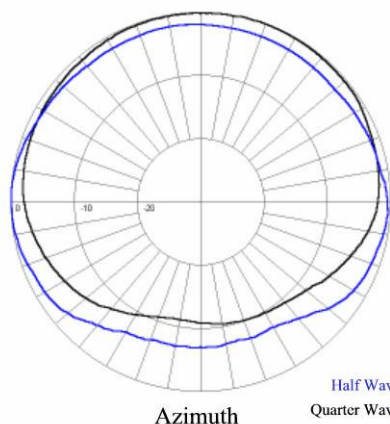
Survival wind velocity (no ice)	mph (km/h)	175 (282)
Survival wind velocity (1/2" radial ice)	mph (km/h)	110 (177)
Lateral thrust (100mph)	lbs (N)	77 (342.5)

Ordering Information

Specify required frequency and connector when ordering.

Available with N male or N female connector

2 x #130 clamps recommended (not included).



Region	United States, South & Central America	Europe, Middle East and Africa	Canada and rest of the world
Telephone	USA: 1 800 288 2763 International: +1 716 874 3682	International: +44 (0) 1223 42 03 03	Canada: 1 800 263 3238 International: +1 905 727 0165
E-mail	salesusa@sinctech.com	salesuk@sinctech.com	salescan@sinctech.com