Exhibit C
Detroit transportable
Call Sign E990170
Request for Modification

RADIATION CALCULATIONS FOR 2.40 meter EARTH STATION			
Nomenclature	**Formula**	**Value**	**Unit**
INPUT PARAMETERS			
M = Antenna Aperture Major Axis		2.40	meters
m = Antenna Aperture Minor Axis		2.40	meters
d = Diameter of Feed Mouth		0.152	meters
f = frequency		14.25	GHz
P = Max Power into Antenna		300.0	Watts
n = Aperture Effeciency		65%	
k = Wavelength @ 14.25 GHz		0.0210	meters
CALCULATED VALUES			
A = Area of Reflector	PIxMxm/4	4.524	meters^2
l = Length of Near Field	M^2/4k	68	meters
L = Beginning of Far Field	0.6M^2/k	164	meters
G = Antenna Gain @ 14.25 GHz	n(4xPIxA)/k^2	83,488	(49.2) dBi
a = Area of Feed Mouth	PI*d^2/4	0.0181	meters^2

POWER DENSITY CALCULATIONS

Region	Maximum Power Density in Region		Hazard Assessment (FCC MPE Limit = 1 mW/cm^2)
	Formula	Value (mW/cm^2	
1 Near Field	4nP/A	17.24	> FCC MPE Limit (See Exhibit A)
2 Far Field	GP/(4(PI)L^2)	7.39	> FCC MPE Limit (See Exhibit A)
3 Transition	<= Nr Fld Region	17.24	> FCC MPE Limit (See Exhibit A)
4 Near Reflector Surface	4P/A	26.53	> FCC MPE Limit (See Exhibit A)
5 Between Reflector & Ground	P/A	6.63	> FCC MPE Limit (See Exhibit A)
6 Between Reflector and Feed	4P/a	6613.1	> FCC MPE Limit (See Exhibit A)