Exhibit C

Analysis of Non-Ionizing Radiation for
Honeywell MCS 8200 & 8000 Antennas

The analysis and calculations performed in this Annex comply with the methods described in the FCC Office of Engineering and Technology Bulletin, No. 65 first published in 1985 and revised in 1997 in Edition 97-01.

Bulletin No. 65 and the FCC R&O 96-326 specify two Maximum Permissible Exposure (MPE) limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to the exposure. These are described below:

- General population/uncontrolled environment MPE limit is 1 mW/cm^2. The general population/uncontrolled MPE is a function of transmit frequency and is for an exposure period of thirty minutes or less.

- Occupational/controlled environment MPE limit is 5 mW/cm^2. The occupational MPE is a function of transmit frequency and is for an exposure period of six minutes or less.

The analysis provided in this report determined the power flux density levels of the antenna in the: 1) far-field, 2) near-field, 3) transition region, and 4) aperture surface.

1.0 Analysis for the MCS 8200 Antenna

1.1 Calculations for the MCS 8200 antenna

Input Parameter	Value	Units	Symbol
Antenna Major Axis Dimension	0.61	m	D
Antenna Transmit Gain	39.8	dBi	G
Transmit Frequency	30000	MHz	F
Power Input to the Antenna	12.6	Watts	P
Antenna Surface Area	1129	cm^2	A
Antenna Efficiency	0.71	Real	H

Calculated Parameter	Value	Units	Symbol	Formula
Gain Factor	9549.93	Real	G	10^(G/10)
Wavelength	0.0100	m	Λ	300/f

Antenna Field Distances

Calculated Parameter	Value	Units	Symbol	Formula
Near-Field Distance	9.3	m	Rnf	$D^2/(4\lambda)$
Distance to Far-Field	22.3	m	Rff	$0.6D^2/\lambda$
Distance of Transition Range	9.3	m	Rt	Rt=Rnf

Power Density

Calculated Parameter	Value	Units	Symbol	Formula
Power Density in the Near Field	10.91	mW/cm²	Snf	16ηP/(πD²)
Power Density in the Far Field	1.0	mW/cm²	Sff	gP/(4πRff²)
Power Density in the Transition Region	10.91	mW/cm²	St	Snf*Rnf/Rt
Power Density at Aperture Surface	39.8	mW/cm²	Ssurface	4P/A

1.2 Summary of Results

Region	Distance (m)	Calculated Power Density (mW/cm^2)	Limit Controlled Environment ≤ 5 mW/cm^2	Limit Uncontrolled Environment ≤ 1 mW/cm^2
Near Field	9.3	10.91	exceeds limit	exceeds limit
Far Field	22.3	1.0	meets limit	meets limit
Transition Region	9.3	10.91	exceeds limit	exceeds limit
Aperture Surface	N/A	39.8	exceeds limit	exceeds limit

As summarized in the above table, the MCS 8200 antenna meets the FCC's MPE levels for controlled or uncontrolled environments in the far field region. The antenna does not meet the FCC's MPE levels for controlled or uncontrolled environments in the other regions defined above.

This antenna model was designed for operation on larger commercial aircraft and will be installed on top of the fuselage. Since the antenna will be mounted on the fuselage of an aircraft that typically will be six meters or more above the ground and will be pointed upward, the general public will not be in close proximity to this antenna and, therefore, the general population will be protected.

The antenna will be enclosed within a radome during operation. Therefore, the aperture surface, where the levels are highest, will not be physically accessible. When maintenance of the antenna is required, the trained technicians will turn off the transmit power before removing the radome and performing maintenance activities. Training of personnel with access to the antenna will include consideration of the operation mode of the antenna and information on how to prevent radiation exposure, including disabling the communications system.

In conclusion, the results show that the MCS 8200 antenna, in a controlled environment, and under the proper mitigation procedures, meets the guidelines specified in § 1.1310 of the Regulations.

2.0 Analysis for the MCS 8000 30 Antenna

2.1 Calculations for the MCS 8000 antenna

Input Parameter	Value	Units	Symbol
Antenna Diameter	0.295	m	D
Antenna Transmit Gain	37	dBi	G
Transmit Frequency	30000	MHz	F
Antenna Feed Flange Diameter	5.1	Cm	D
Power Input to the Antenna	12.0	Watts	P

Calculated Parameter	Value	Units	Symbol	Formula
Antenna Surface Area	683	cm^2	A	$\pi D^2/4$
Area of Antenna Flange	20.4	cm^2	A	$\pi d^2/4$
Antenna Efficiency	0.584	Real	H	$g\lambda^2/(\pi^2 D^2)$
Gain Factor	5010	Real	G	10^(G/10)
Wavelength	0.0100	m	Λ	300/f

Antenna Field Distances

Calculated Parameter	Value	Units	Symbol	Formula
Near-Field Distance	2.18	m	Rnf	$D^2/(4\lambda)$
Distance to Far-Field	5.22	m	Rff	$0.6D^2/\lambda$
Distance of Transition Range	2.18	m	Rt	Rt=Rnf

Power Density

Calculated Parameter	Value	Units	Symbol	Formula
Power Density in the Near Field	36.6	mW/cm^2	Snf	$16\eta P/(\pi D^2)$
Power Density in the Far Field	15.7	mW/cm^2	Sff	$gP/(4\pi Rff^2)$
Power Density in the Transition Region	36.6	mW/cm^2	St	Snf*Rnf/Rt
Power Density at the Feed Flange	2271.4	mW/cm^2	Sfa	4P/a
Power Density at Main Reflector	70.4	mW/cm^2	Ssurface	4P/A
Power Density between Reflector and Ground	17.6	mW/cm^2	Sg	P/A
Distance to 1 mW/cm^2 Power Density	20.7	meters		$\sqrt{((P*G)/(10*4\pi*1W/cm^2))}$
Distance to 5 mW/cm^2 Power Density	9.24	meters		$\sqrt{((P*G)/(10*4\pi*5W/cm^2))}$

2.2 Summary of Results

Region	Distance (m)	Calculated Power Density (mW/cm^2)	Limit Controlled Environment ≤ 5 mW/cm^2	Limit Uncontrolled Environment ≤ 1 mW/cm^2
Safe Range for Uncontrolled	≥ 20.7	1.0	meets limit	meets limit
Safe Range for Controlled	≥ 9.24	5.0	meets limit	exceeds limit
Near Field	2.18	36.6	exceeds limit	exceeds limit
Far Field	5.22	15.7	exceeds limit	exceeds limit
Transition Region	2.18	36.6	exceeds limit	exceeds limit
Feed Flange	N/A	2271.4	exceeds limit	exceeds limit
Main Reflector	N/A	70.4	exceeds limit	exceeds limit

As summarized in the above table, the MCS 8000 antenna exceeds the FCC's MPE levels for controlled or uncontrolled environments at separation distances of less than 20.7m and 9.24m, respectively.

However, given that the antenna will not operate below elevation angles of five degrees and its mounting location is on the tail of the aircraft - that is approximately eight meters above the ground and pointed upward - persons on the ground near the aircraft are unlikely to be exposed to the main beam of the antenna and, therefore, the levels of power density will be significantly reduced from those calculated.

In addition, the antenna will be enclosed within a radome during operation. Therefore, the feed flange and main reflector, where the levels are highest, will not be physically accessible. When maintenance of the antenna is required, trained technicians will turn off the transmit power before removing the radome and performing maintenance activities. Training of personnel with access to the antenna will include consideration of the operation mode of the antenna and information on how to prevent radiation exposure, including disabling the communications system.

In conclusion, the results show that the MCS 8000 antenna, in a controlled environment, and under the proper mitigation procedures, meets the guidelines specified in § 1.1310 of the Regulations.