Exhibit 1

ENGINEERING STATEMENT CONCERNING THE APPLICATION OF PACIFIC SATELLITE CONNECTION, INC. FOR A NEW LICENSE FOR A TRANSMIT/RECEIVE KU-BAND TEMPORARY FIXED EARTH STATION

RADIATION HAZARD STUDY

INTRODUCTION

This study has been performed by Pacific Satellite Connection to estimate the potential radiation hazard that could exist in the vicinity of a receive/transmit 12/14 GHz temporary fixed earth station which employs a 1.5 meter Vertex model SMK-LT transmit/receive satellite antenna.

OST Bulletin 65 specifies a maximum exposure level over a 6 minute period of an average power level of 5 mW/cm^2. This study examines the near-field, far-field and transition zones as well as the edge of the main reflector. These are the areas that are most likely to present a hazard to the general public.

The purpose of this study is to obtain an emission(s) designator(s) / License for full and half transponder analog and digital video plus data transmission segments.

The amplification system consists of two (2) "ETM" KU-band 400-watts (each) amplifiers.

Calculations are made for single-thread (one amplifier) only. Power levels are nominal based on "ETM" test data and actual measurements.

POWER LEVELS:

Nominal output of phase combiner at flange:	**N/A**
Nominal output of one HPA at flange for single thread operation:	**26.0 dBw (400 Watts)**
Line loss:	**.6 dB**

Maximum power level at antenna input flange:

Phase combined:	**N/A**
Single thread:	**26.0 dBw (400 Watts)**
Antenna gain at 14.25 GHz:	**45.90 dBW**
Antenna diatemeter:	**1.5 Meters**

START OF CALCULATIONS:

NEAR FIELD CALCULATIONS:

The near-field or Fresnel region is defined by the equation: **Rnf=D^2/4(L)**

Where:

Rnf = extent of near-field				
D = antenna diameter	**Enter:**	1.5 Meter	**Rnf =**	**26.79** Meter
L = Wavelengh (at 14.000 Ghz)	**Calculate**	**0.021** Meter		

The maximum power density in the near-field is defined by: **Snf=16NP/Pi(D^2)**

Where:

Snf = maximum near-field density	**Provided:**	**16 Constant**
N = Aperature efficiency (.60) or 60% average	**Enter:**	60 % average
P = Power at antenna input flange PHASE COMB.	**Enter:**	0 Watts
P = Power at antenna input flange SINGLE AMP.	**Enter:**	400 Watts
D = antenna diameter	**Provided:**	**1.5** Meter

FOR PHASE COMBINER USE: 16(.60)(watts)/3.14(D)^2

Snf = **0** Watts/meter^2

or

Not applicable for this application ------->------->--------> **0** mW/cm^2

FOR SINGLE THREAD USE: 16(.60)(watts)/3.14(D)^2

Snf = **543.5** Watt/meter^2

or

This is above the allowable level of 5 mW/cm^2 ------->------->--------> **54.4** mW/cm^2

FAR FIELD CALCULATIONS:

The distance to the beginning of the far-field is given by: **Rff=0.6(D^2)/L**

Where:

Rff = distance to the beginning of the far-field	**Provided:**	**0.6**	**Constant**
D = antenna diameter	**Provided:**	**1.5**	Meter
L = wavelength	**Provided:**	**0.021**	Meter

Rff = 0.6(D)^2/.021m

Rff= **64.3** Meters

The power field power density is given by: **Sff=PG/4Pi(R^2)**

where:

Sff = on-axis power density			
P = Power at the input flange phase combined	**Provided:**	**0**	
P = Power at the input flange single thread	**Provided:**	**400**	
G = antenna gain (dBi)	**Enter:**	45.9	dBi
R = distance of interest	**Provided:**	**64.3**	Meters

FOR PHASE COMBINER: Sff =ROUND((Watts)*((10^(Ant. Gain /10))))/((4*(3.14))*(Rff)^2),1)

Sff = **0** W/M^2

or

Not Applicable -------->-------->-------> **0** mW/cm^2

FOR SINGLE THREAD: Sff =ROUND(((Watts)*((10^(Ant. Gain/10))))/((4*(3.14))*(Rff)^2),2)

Sff = **299.67** W/M^2

or

This is above the maximum allowable level of 5 mW/cm^2 -------->------->---------> **30** mW/cm^2

Transition Zone:

For analysis purposes the maximum power density of the near-field is calculated and this value is assumed for every location in the transition zone.

FOR PHASE COMBINER:

Not Applicable

FOR SINGLE THREAD:

The value calculated above, 54.4 mW/cm^2 is above the maximum level allowed of
5 mW/cm^2. The power density at the beginning of the far-field calculated above is 30 mW/cm^2.
which is also above the maximum allowable of 5 mW/cm^2.

Power density in the near field decreases inversely with the distance; power density in the far field decreases inversely with the square of the distance. Power density in the transition zone between the near and the far fields decreases with not-quite the square of the distance.

Power density in the transition zone is given by: **St=(SnfXRnf)/Rd**

Where:

St = Power density in transition zone		
Snf = Near-field density (calculated above)	**Provided:**	**543.5** W/M^2
Rnf = Extent of near field (calculated above)	**Provided:**	**26.79** Meters
Rd = Distance to point of interest (in the transition zone)	**Use this:**	**116** Meters

A distance of 116 meters is used for Rd in this case which is above the midpoint of the transition zone.

FOR PHASE COMBINER: St = (Snf/Dr^2)/116 meters

St = **0** Watts/meter^2
or
Not Applicable --------->------->-------> **0** mW/cm^2

FOR SINGLE THREAD: St = (Snf/Dr^2)/116 meters

St = **125.5** Watts/meter^2
or
This is above the maximum allowable level of 5 mW/cm^2 --------->-------->------> **12.6** mW/cm^2

EDGE OF PRIMARY REFLECTOR:

Power density at the edge of the primary reflector, assuming even distribution is given by:

W = P/A

Where:

P = Power at the input flange (phase combined)	**Provided:**	**0** Watts
P = Power at the input flange (single thread)	**Provided:**	**400** Watts
A = Area of primary reflector	**Provided:**	**1.5** Meters

FOR PHASE COMBINED:

W = watts / D^2

W = **0** Watts/m^2

or

Not Applicable --------->------->-------> **0** mW/cm^2

FOR SINGLE THREAD:

W = watts/D^2

W = **266.7** watts/m^2

or

This is above the limit of 5 mW/cm^2 -------->------->-------> **26.7** mW/cm^2

CONCLUSION:

All values calculated above are above the limit of 5 mW/cm^2, as would be expected for an antenna of this size, with this maximum power output (400 watts - 26.0 dBW).

The RPGL limit of 5 mW/cm^2 (main beam) will be met at or below the designated distance of 166 meters for single thread full power transmissions. This was calculated by setting the far field equation in section 4 equal to 5 mW/cm^2 or 50 W/M^2 and solving for distance.

The antenna will be mounted on the top of a vehicle (Cargo van) and/or within a safe un-frequented area. In addition, the antenna is typically aimed at satellites greater than 15 degrees above the horizon. The solid volume encompassing the near-field and far-field will be above the area where the general public will be (on the ground) during transmissions.

A copy of this report will be provided to all involved personnel. Standard radiation hazard signs will be posted.

This study was prepared on August 9th, 2012. It follows OST 65 guidelines.

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