Exhibit C

Radiation Hazard Analysis

Astranis Projects USA LLC
1.8-meter Ka-band Antenna
November 2022

1. Introduction

This analysis assesses the non-ionizing radiation levels for the Global Skyware AT1154 1.8-meter terminal ("1.8m terminal"). The calculations performed in this analysis are consistent with the recommendations articulated in the Commission's Office of Engineering and Technology Bulletin, Number 65 ("Bulletin 65").[1] This analysis demonstrates that the 1.8m terminal complies with the applicable radiation exposure limits.

Bulletin 65 and Section 1.310 of the Commission's rules specify two separate exposure limits: one for Occupational/Controlled Exposures and one for General Population/Uncontrolled Exposures. The maximum level of non-ionizing radiation to which employees may be exposed under the occupational threshold is limited to a power density level of 5 milliwatts per square centimeter (5 mW/cm2) averaged over any 6-minute period in a controlled environment. The maximum level of non-ionizing radiation to which the General Population may be exposed is limited to a power density level of 1 milliwatt per square centimeter (1 mW/cm2) averaged over any 30-minute period in an uncontrolled environment.

This report analyzes the maximum power density levels in the vicinity of an ES terminal antenna in five regions: (1) the far field, (2) the near field, (3) the transition region between near field and far field, (4) near the main reflector surface, and (5) between the main reflector and the feed. These radiation regions were analyzed using the definitions and formulas in Bulletin 65 for aperture antennas. The results of this analysis are summarized below and identify the potential exposure under nominal operating conditions and worst-case conditions, respectively.

2. Input Parameters

[1] Astranis understands that the Commission is currently revising Bulletin 65 to change the equation for calculating near field power density. Therefore, Astranis is using a more conservative method of calculation, as proposed by the IEEE, which yields a higher value for the near field power density. *See IEEE Recommended Practice for Measurements and Computations of Electric, Magnetic, and Electromagnetic Fields with Respect to Human Exposure to Such Fields, 0 Hz to 300 GHz*, Table D.5 (Approved Mar. 25, 2021), https://ieeexplore.ieee.org/document/9444273.

The input parameters below are those used to determine the radiation levels for the proposed 1.8m terminal.

1.8m Earth Station Parameter Chart

Antenna Diameter	D_{maj} := 1.8m
Antenna Surface Area	A_{ref} :=2.54 m^2
Antenna Feed Mouth Area	A_{feed} := 40.96 cm^2
Antenna Isotropic Gain	G := 52.4 dBi
Nominal Antenna Efficiency	η := 0.543
Nominal Frequency	f := 30.0 GHz
Nominal Wavelength	λ := 0.999 cm
Maximum Transmit Power / Carrier	P_{car} := 2 W
Number of Carriers	N_{car} := 2
Total Transmit Power	P_{total} := 4 W
W/G Loss from Transmitter to Feed	N/A, transmitter with integrated feed
Total Feed Input Power	P_{feed} := 4 W

3. Analysis

At the Antenna Surface. The maximum power density directly in front of an antenna (e.g., at the antenna surface).

$$S_{ref} := \frac{4P_{total}}{A_{ref}}$$

Power Density 0.629 mW/cm^2

Near Field Region. The near field region is an elliptical volume co-incident with the boresight of the main beam extending outward from the main reflector.

Near Field Region	$R_{nf} := \frac{D_{maj}^2}{4\lambda}$	81.1m
Power Density	$S_{nf} := \frac{16 P_{total}}{4\pi\eta R_{nf}^2}$	1.15 mW/cm^2

Transition Region. The transition region is located between the near field region and the far field region. This region has a power density that decreases inversely with increasing distance. Therefore the power density in the transition region will be less than the power density in the near field for the purpose of evaluating potential exposure.

Transition Region	$R_{nf}\ to\ R_{ff}$	81.1m to 194.5m

Far Field Region. That region of the field of an antenna where the angular field distribution is essentially independent of the distance from the antenna.

Far Field Region	$R_{ff} := 0.6 \frac{D_{maj}^2}{\lambda}$	194.5m
Power Density	$S_{ff} := \frac{P_{total} G}{4\pi R_{ff}^2}$	0.146 mW/cm^2

Region between the Main Reflector and the Feed.

The region where radiation is emitted is where power is fed to the antenna from a transmitter feed mounted on a mast at the focal point of the antenna. Radiation from this source is then incident on to the main reflector resulting in the transmission of a collimated beam.

Conclusion and Site Access Restrictions

The analysis above demonstrates that the 1.8m terminals will exceed the general population exposure threshold in the near field. It will not result in exposure limits exceeding the applicable radiation limits in any other regions.

In order to ensure the 1.8m terminal will not pose a risk of harmful radiation hazard to the general population, Astranis Projects USA LLC ("Astranis") will restrict access to its 1.8m terminal sites pursuant to the guidance in Bulletin 65 to prevent any potential exposure of the terminal's near field region to the general population.

For example, the sites that have already been identified for the 1.8m terminals are not accessible to the general population. Most will be sited on top of buildings where rooftop access is restricted by requiring passage through multiple locked doors.

Astranis will also site one 1.8 meter terminal at ground level; that terminal will be sited on private land in a remote region of Alaska, adjacent to a large building that prevents access to the site in two directions. In the remaining directions, the ground level site will be sectioned off with physical barriers and signage consistent with the guidance in Bulletin 65.

Any additional deployments of the 1.8m terminal will be sited at locations where precautions consistent with Bulletin 65's guidance will be implemented such that the near field region will be inaccessible to the general population.

In order to limit potential exposure to the occupational population, the antennas will be turned off prior to any maintenance or other work that must be conducted near the 1.8m terminal. The antenna transceivers are equipped with LED indicators which convey the current transmitting status.