Exhibit B

This Exhibit B presents the power flux-density ("PFD") contour analysis and associated assessments prepared by Northwood Space Corporation ("Northwood") pursuant to Section 25.136(a)(4) of the Federal Communications Commission's ("FCC") rules[1] for Northwood's gateway earth station facility located at or near Loring in Aroostook County, Maine (the "Site") relative to the Upper Microwave Flexible Use Service ("UMFUS") deployments in the 27.5–28.35 GHz band in the county.

1. PFD Contour Generation

a. Earth Station Parameters

Table 1 below sets forth the earth station parameters used by Northwood to generate the PFD contour for the Site. The latitude and longitude values reflect the Site's confirmed coordinates.

Table 1. Northwood Earth Station Parameters

Field	Value	Units
County / Municipality	Aroostook County	
Latitude	46.933586	° N
Longitude	–67.909457	° W
Simulation Frequency	28	GHz
Maximum Number of Simultaneously Active Antennas[2]	6	antennas
Antenna Centerline Height (Above Ground Level)	1.52	meters
Worst-case Antenna Gain toward the Horizon	–10	dBi
Average Antenna Gain toward the Horizon	–20	dBi
RF Transmit Power Density (antenna input)	24.0	dBW/MHz
Per-Antenna EIRP Density toward the Horizon	4.0	dBW/MHz
Aggregate EIRP Density toward the Horizon (6 antennas)	11.8	dBW/MHz

The RF transmit power in Table 1 represents the power required to communicate with GSO satellites. Power levels for communications with much lower altitude NGSO satellites will be several orders of magnitude lower.

The gain toward the horizon in Table 1 reflects the off-axis characteristics of Northwood's 2.4-meter Ka-band antennas together with the Site's operational pointing geometry. Each antenna is

[1] 47 C.F.R. § 25.136(a)(4).

[2] A single antenna is the typical number of antennas transmitting at any one time. All six antennas were used for modelling the worst-case aggregate interference.

highly directive, with an on-axis gain of 55.2 dBi and a half-power beamwidth of approximately 0.3 degrees, and its gain declines steeply with off-axis angle. The reference radiation pattern in Recommendation ITU-R S.465-6 declines to −10 dBi for off-axis angles at and beyond approximately 48 degrees. In reality, the measured off-axis gain of Northwood's antennas is substantially better than this reference envelope. For purposes of this Section 25.136 analysis, we use a mean off-axis antenna gain of –20 dBi to represent the earth station's antenna gain toward the horizon. The actual off-axis gain toward the horizon varies between approximately –10 dBi and –30 dBi across large portions of the angular range (and drops as low as –50 dBi at certain angles). A mean off-axis gain of –20 dBi is a reasonable, statistically representative simplification that accounts for the full range of sidelobe variation across all operational beam positions. This approach is consistent with industry practice of evaluating earth station emissions against emission envelopes rather than requiring exhaustive enumeration of every antenna pattern variation. The aggregate input value in Table 1 conservatively applies the full 10·log10(6) combination of all six antennas, without any reduction for the varying and independent pointing of the antennas.

b. PFD Contour Methodology

To demonstrate compliance with the criteria in Section 25.136(a)(4) of the Commission's rules allowing fixed-satellite service ("FSS") earth station transmissions in the 27.5–28.35 GHz band without providing additional interference protection to co-frequency UMFUS licensees, Northwood generated the Site's −77.6 dBm/m²/MHz PFD contour using the earth station parameters set forth in Table 1. The contour was generated by creating a raster grid of measurement points located 10 meters above ground level and surrounding the earth station, and by calculating the path attenuation, received power, and power flux-density to each point.

Northwood used bare-Earth digital terrain elevation data obtained from the U.S. Geological Survey to characterize the terrain surrounding the Site. Northwood applied Recommendation ITU-R P.452 to estimate the basic transmission loss not exceeded for 10% of time between the Site and each point on the PFD measurement grid. To account for clutter losses at the UMFUS base station receive point, Northwood applied Recommendation ITU-R P.2108 and assumed that 80% of UMFUS base station deployments are located below rooftop level and therefore experience clutter losses consistent with that recommendation. No clutter loss was assumed at the Northwood earth station. Northwood designed the Site to ensure that the PFD produced by the earth station does not exceed −77.6 dBm/m²/MHz at 10 meters above ground level anywhere outside of the contour depicted in Figure 1 below.

c. Gateway PFD Contour Figure

Figure 1 below depicts the Site's −77.6 dBm/m²/MHz PFD contour together with the boundaries of the U.S. Census tabulation blocks that intersect the contour. The green dot in Figure 1 marks the location of the Site. The map plots each intersecting census block by its block identifier against the Site's latitude and longitude, and identifies the total population determined to be covered by the contour. This figure and the population coverage tables in Section 2.b below are derived from the population-block intersection analysis performed for the Site.

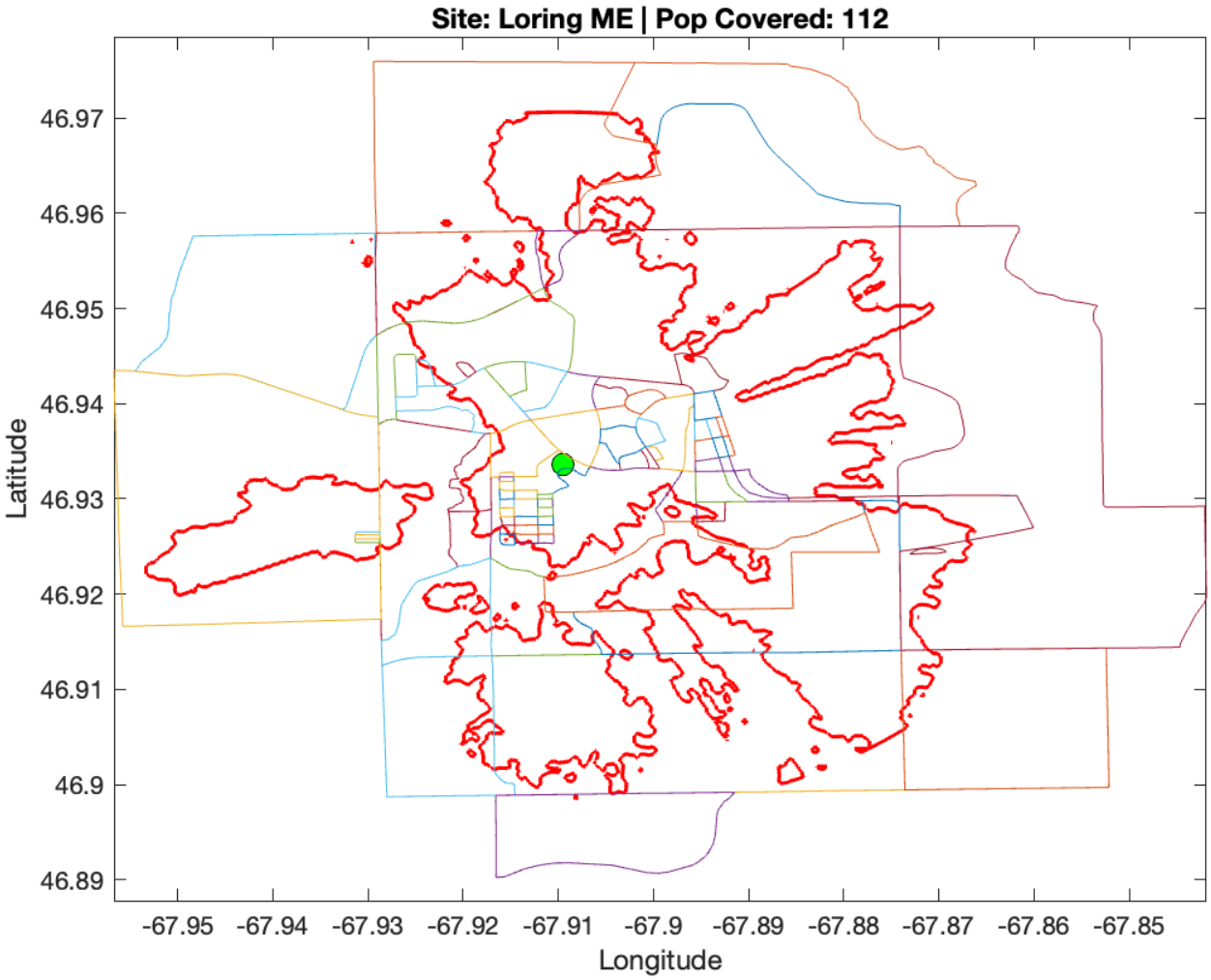

Figure 1. Loring, ME Gateway PFD Contour (−77.6 dBm/m²/MHz)

2. Section 25.136(a)(4) Protection Criteria Analysis

a. Other Earth Stations Located in the County (47 C.F.R. § 25.136(a)(4)(i))

Section 25.136(a)(4)(i) of the Commission's rules requires the applicant to demonstrate that there are no more than two other authorized earth stations operating in the 27.5–28.35 GHz band pursuant to Section 25.136(a) in the same county.[3]

Northwood has reviewed the Commission's licensing database and identified, as of the date of this submission, one other FSS earth station within Aroostook County.[4] This earth station is not

[3] 47 C.F.R. § 25.136(a)(4).

[4] *See* Application of SpaceX Services, Inc., ICFS File No. SES-AMD-20200220-00178 (granted May 14, 2021) ("SpaceX Application Amendment") (amending original application to provide UMFUS analysis

collocated with the Site. However, this earth station's −77.6 dBm/m²/MHz PFD contour partially overlaps with the Site's contour depicted in Figure 1 above.

b. Population Covered by Census Block (47 C.F.R. § 25.136(a)(4)(ii))

Section 25.136(a)(4)(ii) requires the applicant to demonstrate that the area covered by the earth station's PFD contour, "together with the similar area of any other earth station" authorized under Section 25.136(a), does not cover, in the aggregate, a population exceeding certain prescribed limits.[5] These limits are: (1) 0.1% of the county population if that population exceeds 450,000; (2) 450 people if the county population is between 6,000 and 450,000; or (iii) 7.5% of the county population if that population is fewer than 6,000.[6] Under FCC guidance implementing Section 25.136(a)(4)(ii), where the PFD contours of two earth stations overlap within the same licensing area, the population covered by the overlap is counted only once against the aggregate population limit for that licensing area, and where a contour covers multiple licensing areas, the covered population in each licensing area is counted against the limit applicable to that specific area.[7]

The total population of Aroostook County, according to 2020 U.S. Census Bureau data, is 67,105 and therefore the applicable population limit pursuant to Section 25.136(a)(4)(ii) is 450 persons.[8]

Table 2 below sets forth, on a census-block basis, the total population, total block area, the percentage of each block's area falling within the Site's PFD contour, and the resulting covered population which is calculated to be proportional to the covered area of each block.

Table 2. Population Covered by Census Block

County Name	Block ID	Total Population	Total Area	Partial Area	% Area	Covered Population
Aroostook County	3064	0	51012.27	37006.58	72.54447	0
Aroostook County	3044	0	136707.3	70139.2	51.30612	0
Aroostook County	3082	0	18946.25	18946.25	100	0
Aroostook County	3037	0	19611.45	19611.45	100	0
Aroostook County	3047	0	19498.81	17547.5	89.99265	0
Aroostook County	3054	0	12099.4	12099.4	100	0
Aroostook County	3034	0	11941.53	11941.53	100	0
Aroostook County	3067	0	40556.67	20621.56	50.84627	0
Aroostook County	3058	0	6067.221	6067.221	100	0
Aroostook County	3068	0	38578.23	38578.23	100	0
Aroostook County	3003	0	535037.2	212152.8	39.65198	0
Aroostook County	3061	0	45704.55	45704.55	100	0
Aroostook County	3059	0	11580.27	6864.9	59.28102	0
Aroostook County	3118	0	2348145	66120.96	2.81588	0

and seek authority to operate under 47 C.F.R. § 25.136(a)(4)); Application of SpaceX Services, Inc., ICFS File No. SES-MOD-20221221-01460 (granted Nov 17, 2023) (modifying authorization to add a point of communication).

[5] 47 C.F.R. § 25.136(a)(4)(ii).

[6] 47 C.F.R. § 25.136(a)(4)(ii), Table 1.

[7] *Space Bureau Updates its Guidance on Siting Methodologies for Earth Stations Seeking to Operate in the 24.75-25.25 GHz, 27.5-28.35 GHz, 37.5-40 GHz, 47.2-48.2 GHz, and 50.4-51.4 GHz Bands to Demonstrate Compliance with Section 25.136*, 40 FCC Rcd 1547, 1556 (rel. Mar. 10, 2025) ("2025 UMFUS Guidance").

[8] *See Aroostook County, Maine, U.S. Census Bureau*, https://www.census.gov/quickfacts/fact/table/aroostookcountymaine/PST045225 (last visited Aug. 22, 2026).

Aroostook County	3035	0	52021.87	52021.87	100	0
Aroostook County	3056	0	13217.75	13217.75	100	0
Aroostook County	3011	0	122694.8	119411.1	97.32368	0
Aroostook County	3036	0	27398.76	27398.76	100	0
Aroostook County	3065	0	497813.9	475058.9	95.42902	0
Aroostook County	3140	0	2022158	116398.9	5.756173	0
Aroostook County	3039	0	38985.42	38985.42	100	0
Aroostook County	2012	66	5291290	2575419	48.67281	32.12405
Aroostook County	3028	0	5655.99	5655.99	100	0
Aroostook County	3022	0	62881.25	62881.25	100	0
Aroostook County	1000	0	2834048	4592.9	0.162062	0
Aroostook County	3010	0	95760.75	95760.75	100	0
Aroostook County	3081	0	38278.39	38278.39	100	0
Aroostook County	3083	0	19974.93	19974.93	100	0
Aroostook County	3071	0	197090.7	37442.13	18.99741	0
Aroostook County	3045	0	1149926	738155.2	64.19153	0
Aroostook County	3004	2	13345.67	13345.67	100	2
Aroostook County	3060	0	11587.87	11587.87	100	0
Aroostook County	3005	0	6806993	4216485	61.94343	0
Aroostook County	3079	0	141185.9	141185.9	100	0
Aroostook County	3030	0	68719.54	68719.54	100	0
Aroostook County	3080	0	19099.16	19099.16	100	0
Aroostook County	3021	0	164465.9	164465.9	100	0
Aroostook County	3069	12	613427	239391.8	39.02531	4.683037
Aroostook County	2013	12	1437591	191888.6	13.34792	1.601751
Aroostook County	3023	0	1240568	172675.8	13.91909	0
Aroostook County	3051	0	11946.92	11946.92	100	0
Aroostook County	3053	0	13116.48	13116.48	100	0
Aroostook County	3029	0	221655.6	221655.6	100	0
Aroostook County	3042	0	48902.46	48902.46	100	0
Aroostook County	3041	0	103677.9	103677.9	100	0
Aroostook County	3070	4	747566.6	177401.2	23.73049	0.94922
Aroostook County	3013	2	1286802	368290.1	28.62058	0.572412
Aroostook County	3057	0	12481.59	12481.59	100	0
Aroostook County	3007	0	11821	11821	100	0
Aroostook County	1009	44	5732066	1387496	24.20587	10.65058
Aroostook County	3043	0	48750.42	48750.42	100	0
Aroostook County	3015	1	1048206	816508.1	77.8958	0.778958
Aroostook County	3025	53	369715.3	215656.1	58.33031	30.91506
Aroostook County	3020	1	14626.13	14626.13	100	1
Aroostook County	3066	10	1966442	1470608	74.78523	7.478523
Aroostook County	2011	27	2660030	124129.8	4.666482	1.25995
Aroostook County	3032	0	217245.8	217245.8	100	0
Aroostook County	3006	0	13849.42	13849.42	100	0
Aroostook County	1010	0	8509.774	8509.774	100	0
Aroostook County	1012	0	6583.223	6583.223	100	0
Aroostook County	3072	0	204783.7	81367.1	39.7332	0
Aroostook County	3050	0	14262.91	817.949	5.7348	0
Aroostook County	3119	0	3829037	1165942	30.45002	0
Aroostook County	3027	0	250460.1	230408.8	91.99419	0
Aroostook County	2020	16	1506856	392.7384	0.026063	0.00417
Aroostook County	3049	0	6666.203	6666.203	100	0
Aroostook County	3018	2	145631	145631	100	2
Aroostook County	3052	0	10252.62	10252.62	100	0
Aroostook County	3038	0	19270.52	19270.52	100	0
Aroostook County	3078	0	1592000	991975.3	62.30999	0
Aroostook County	3048	0	11683.97	11683.97	100	0
Aroostook County	3040	0	28957.23	28957.23	100	0
Aroostook County	3016	0	89335.3	89335.3	100	0

Aroostook County	3017	0	37100.41	5036.55	13.57546	0
Aroostook County	3033	0	14217.93	14217.93	100	0
Aroostook County	3008	0	59133.16	59133.16	100	0
Aroostook County	3031	0	54635.8	54635.8	100	0
Aroostook County	3055	0	11758.65	11758.65	100	0
Aroostook County	3012	0	127547.8	89873.73	70.46279	0
Aroostook County	3046	0	12728.8	12728.8	100	0
Aroostook County	3063	0	50475.77	50475.77	100	0
Aroostook County	3002	36	7772084	363350.5	4.675071	1.683026
Aroostook County	3062	14	95633.31	95633.31	100	14
Aroostook County	3009	0	11442.47	11442.47	100	0
Aroostook County	1011	0	9372.862	9372.862	100	0

Table 3 below sets forth the total population covered by the Site's PFD contour in the county.

Table 3. Population Covered by County

County Name	Population Covered
Aroostook County	112

Note: Covered population figures in Table 2 are summed and the result is rounded up to the next whole number of persons

As mentioned above, at the time of this filing, there is one other FSS earth station in the 27.5–28.35 GHz band in Aroostook County, operated by SpaceX Services, Inc. ("SpaceX"). SpaceX has provided its −77.6 dBm/m²/MHz PFD contour in its application.[9] Using 2020 U.S. Census Bureau data and the actual area method, Northwood has determined that SpaceX's station's contour covers 139 people.

As noted above, the Site's contour partially overlaps with the SpaceX station's contour. The aggregate population coverage for the Site is approximately 251 without subtracting the population covered by the overlap.[10] The aggregate population coverage therefore does not exceed the 450 population limit.

c. Infrastructure-Crossing Analysis (47 C.F.R. § 25.136(a)(4)(iii))

Section 25.136(a)(4)(iii) of the Commission's rules provides that an earth station's PFD contour shall not cross any roads classified as Interstate, Other Freeways and Expressways, or Other Principal Arterials, as defined in the functional classification guidelines issued by the Federal Highway Administration. The Space Bureau's Revised Siting Guidance[11] clarifies that applicants should consult the Federal Highway Administration Office of Planning, Environment, and Realty's Executive Geographic Information System ("HEPGIS") map to determine the classification of roads in the vicinity of the proposed earth station, and specifically the 2022 Highway Performance Monitoring System Functional Class on National Highway System ("NHS") layer.

[9] SpaceX Application Amendment, Narrative at A-5.
[10] *See* 2025 UMFUS Guidance at 3 ("Where two PFD contours or the protection zones of two earth stations overlap within the same licensing area, the Bureau intends to count the population covered by the overlap only once against the aggregate population limit for that licensing area.").
[11] 2025 UMFUS Guidance, 40 FCC Rcd at 1557.

Northwood has reviewed the HEPGIS map and the 2022 NHS functional classification data for the area surrounding the Site. Based on this review, the Site's −77.6 dBm/m²/MHz PFD contour depicted in Figure 1 above does not intersect with any roads classified as Interstate, Other Freeways and Expressways, or Other Principal Arterials segments.

Section 25.136(a)(4)(iii) also provides that an earth station's PFD contour shall not encompass any major event venue, urban mass transit route, passenger railroad, or cruise ship port. Northwood's analysis of the Site confirms that the PFD contour depicted in Figure 1 does not encompass any such infrastructure, and this requirement is therefore satisfied.

d. UMFUS Coordination (47 C.F.R. § 25.136(a)(4)(iv))

Section 25.136(a)(4)(iv) requires that the applicant complete coordination with UMFUS licensees within the earth station's PFD contour. Northwood has completed such coordination and has attached the coordination report as Exhibit A to the application.[12]

[12] 47 C.F.R. § 25.136(a)(4)(iv).