

Ka-Band Earth Station – Talkeetna, AK

Frequency Coordination Report

28 GHz



Prepared on Behalf of
NORTHWOOD SPACE
CORPORATION

May 28, 2026

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1. Summary of Results

On behalf of NORTHWOOD SPACE CORPORATION, Comsearch performed a coordination notice under Section 25.203(c) and Section 25.136(a)(4) of the FCC's rules for all existing and proposed terrestrial licenses within the coordination contours of their proposed Ka-Band earth station in Talkeetna, AK, which will transmit at 28 GHz¹. Prior-notification letters were sent to the licensees and a copy of the notification data is provided in section four of this report. The earth station coordination was finalized on May 28, 2026.

There were no objections from any of the incumbent 28 GHz licensees.

2. 28 GHz Common Carrier and LMDS Coordination

In accordance with FCC Rules and Regulations, the Ka-Band earth station in Talkeetna, AK was prior-coordinated by Comsearch. A notification letter and datasheets for this earth station were sent to the following 28 GHz common carrier fixed microwave licensees. These licensees are authorized to operate temporary fixed operations from 27.5 – 29.5 GHz on a local basis.

Licensee	Authorized Geographic Area
AT&T	Statewide: AK
GCI	Statewide: AK

A notification letter and datasheets for the Ka-Band earth station in Talkeetna, AK were also sent to the following 28 GHz local multipoint distribution system (LMDS) licensees. These licensees are authorized to operate fixed operations from 29.1 – 29.25 GHz on a market basis.

Licensee	Authorized Geographic Area
None Identified	

No objections were received from the common carrier or LMDS incumbents.

¹ The proposed earth station will operate in the 27.5 – 31.0 GHz portion of the Ka-Band.

3. 28 GHz UMFUS Coordination

There were three 28 GHz UMFUS licensees identified within the coordination distance of the proposed earth station. The proposed earth station will operate on frequencies that overlap Channel L1 & L2 of the UMFUS service. The total frequency allocation for Channels L1 & L2 of the UMFUS spectrum appears below.

Channel: **L1** 27.500 - 27.925 GHz
 L2 27.925 - 28.350 GHz

Licensee	Authorized Geographic Area
TelAlaska	Market Based
T-Mobile	Market Based
Verizon	Market Based

There were no objections from the UMFUS incumbents within coordination distance.

4. Earth Station Coordination Data

This section presents the data pertinent to the proposed Ka-Band earth station in Talkeetna, AK. This data was circulated to all incumbent licensees in the shared 28 GHz frequency ranges.

Date: 04/20/2026
Job Number: <PCNJobCode>

Administrative Information

Status ENGINEER PROPOSAL
Call Sign <PCNCallSign>
Licensee Code NORSPC
Licensee Name Northwood Space Corp.

Site Information

TALKEETNA, AK

Venue Name
Latitude (NAD 83) 62° 20' 0.7" N
Longitude (NAD 83) 150° 2' 15.8" W
Climate Zone A
Rain Zone 2
Ground Elevation (AMSL) 146.0 m / 479.0 ft

Link Information

Satellite Type Low Earth Orbit
Mode TO - Transmit-Only
Modulation Digital
Minimum Elevation Angle 5.0°
Azimuth Range 0.0° to 360°
Antenna Centerline (AGL) 1.52 m / 5.0 ft

Antenna Information

Transmit - FCC32

Manufacturer Northwood Space
Model NW24
Gain / Diameter 57.0 dBi / 2.4 m
3-dB / 15-dB Beamwidth 0.23° / 0.55°

Max Available RF Power (dBW/4 kHz) 0.0
(dBW/MHz) 24.0

Maximum EIRP (dBW/4 kHz) 57.0
(dBW/MHz) 81.0

Interference Objectives: Long Term -151.0 dBW/4 kHz 20%
Short Term -128.0 dBW/4 kHz 0.0025%

Frequency Information

Transmit 28.0 GHz

Emission / Frequency Range (MHz) 2M00G7W / 27500.0 - 31000.0

Max Great Circle Coordination Distance 100.0 km / 62.1 mi
Precipitation Scatter Contour Radius 100.0 km / 62.1 mi

Coordination Values	TALKEETNA, AK	
Licensee Name	Northwood Space Corp.	
Latitude (NAD 83)	62° 20' 0.7" N	
Longitude (NAD 83)	150° 2' 15.8" W	
Ground Elevation (AMSL)	146.0 m / 479.0 ft	
Antenna Centerline (AGL)	1.52 m / 5.0 ft	
Antenna Model	2.4 meter	
Antenna Mode	Transmit 28.0 GHz	
Interference Objectives: Long Term	-151.0 dBW/4 kHz	20%
Short Term	-128.0 dBW/4 kHz	0.0025%
Max Available RF Power	0.0 (dBW/4 kHz)	

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 28.0 GHz	
			Horizon Gain (dBi)	Coordination Distance (km)
0	0.39	44.42	4.00	100.00
5	0.33	41.19	4.00	100.00
10	0.70	38.61	4.00	100.00
15	0.46	35.94	4.00	100.00
20	0.25	33.76	4.00	100.00
25	0.00	32.08	4.00	100.00
30	0.66	31.95	4.00	100.00
35	1.68	32.89	4.00	100.00
40	1.97	33.77	4.00	100.00
45	1.73	34.76	4.00	100.00
50	1.29	36.17	4.00	100.00
55	1.31	38.50	4.00	100.00
60	2.00	41.73	4.00	100.00
65	2.83	45.28	4.00	100.00
70	3.68	49.00	4.00	100.00
75	4.39	52.75	4.00	100.00
80	5.00	56.55	4.00	100.00
85	5.40	60.32	4.00	100.00
90	5.91	64.20	4.00	100.00
95	6.60	68.17	4.00	100.00
100	6.78	72.00	4.00	100.00
105	6.78	75.84	4.00	100.00
110	6.43	79.68	4.00	100.00
115	6.20	83.60	4.00	100.00
120	5.89	87.56	4.00	100.00
125	5.71	91.55	4.00	100.00
130	5.51	95.56	4.00	100.00
135	5.31	99.57	4.00	100.00
140	4.70	103.66	4.00	100.00
145	3.78	107.83	4.00	100.00
150	3.34	111.92	4.00	100.00
155	3.60	115.76	4.00	100.00
160	3.65	119.56	4.00	100.00
165	3.91	123.16	4.00	100.00
170	2.70	127.35	4.00	100.00
175	1.28	131.64	4.00	100.00
180	0.88	135.27	4.00	100.00
185	0.63	138.59	4.00	100.00

Coordination Values		TALKEETNA, AK
Licensee Name		Northwood Space Corp.
Latitude (NAD 83)		62° 20' 0.7" N
Longitude (NAD 83)		150° 2' 15.8" W
Ground Elevation (AMSL)		146.0 m / 479.0 ft
Antenna Centerline (AGL)		1.52 m / 5.0 ft
Antenna Model		2.4 meter
Antenna Mode		Transmit 28.0 GHz
Interference Objectives: Long Term		-151.0 <u>dBW/4 kHz</u> 20%
Short Term		-128.0 <u>dBW/4 kHz</u> 0.0025%
Max Available RF Power		0.0 (<u>dBW/4 kHz</u>)

Azimuth (°)	Horizon Elevation (°)	Antenna Discrimination (°)	Transmit 28.0 GHz	
			Horizon Gain (<u>dB</u> i)	Coordination Distance (km)
190	0.60	141.48	4.00	100.00
195	0.00	144.45	4.00	100.00
200	0.00	146.47	4.00	100.00
205	0.00	147.92	4.00	100.00
210	0.00	148.71	4.00	100.00
215	0.40	148.39	4.00	100.00
220	1.26	146.93	4.00	100.00
225	1.26	145.68	4.00	100.00
230	1.26	143.86	4.00	100.00
235	1.26	141.54	4.00	100.00
240	1.26	138.82	4.00	100.00
245	1.54	135.57	4.00	100.00
250	1.54	132.27	4.00	100.00
255	1.54	128.75	4.00	100.00
260	2.98	124.41	4.00	100.00
265	2.98	120.68	4.00	100.00
270	2.98	116.84	4.00	100.00
275	2.98	112.91	4.00	100.00
280	2.98	108.92	4.00	100.00
285	2.98	104.87	4.00	100.00
290	2.98	100.78	4.00	100.00
295	3.50	96.63	4.00	100.00
300	3.10	92.53	4.00	100.00
305	3.10	88.40	4.00	100.00
310	3.10	84.27	4.00	100.00
315	3.10	80.16	4.00	100.00
320	3.10	76.07	4.00	100.00
325	2.58	71.90	4.00	100.00
330	2.58	67.87	4.00	100.00
335	2.58	63.90	4.00	100.00
340	2.58	60.02	4.00	100.00
345	1.89	55.93	4.00	100.00
350	1.89	52.24	4.00	100.00
355	1.89	48.70	4.00	100.00

5. Contact Information

For questions or information regarding the 28 GHz Frequency Coordination Report, please contact:

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