

# FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT

Prepared for  
**Universal Space Network, Inc.**  
**NORTH POLE, AK**  
**Satellite Earth Station**

Prepared By:  
COMSEARCH  
21515 Ridgetop Circle, Suite 300  
Sterling, VA 20166  
January 05, 2026

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## **1. CONCLUSIONS**

An interference study considering all existing, proposed and prior coordinated microwave facilities within the coordination contours of the proposed earth station demonstrates that this site will operate satisfactorily with the common carrier microwave environment. Further, there will be no restrictions of its operation due to interference considerations.

## **2. SUMMARY OF RESULTS**

A number of great circle interference cases were identified during the interference study of the proposed earth station. Each of the cases, which exceeded the interference objective on a line-of-sight basis, was profiled and the propagation losses estimated using NBS TN101 (Revised) techniques. The losses were found to be sufficient to reduce the signal levels to acceptable magnitudes in every case.

### 3. SUPPLEMENTAL SHOWING

Pursuant to Part 25.203(c) of the FCC Rules and Regulations, the satellite earth station proposed in this application was coordinated by Comsearch using computer techniques and in accordance with Part 25 of the FCC Rules and Regulations.

Coordination data for this earth station was sent to the below listed carriers with a letter dated 12/04/2025.

Company

3G Wireless, LLC  
Aerial Video Systems  
Accelerated Media Technologies, Inc.  
Alaska Public Media  
Ascent Media Network Services, LLC  
Bellsouth Telecommunications, Inc.  
Borgeson, Tom R.  
Broadcast Sports Inc.  
Carolina Telephone and Telegraph Co  
Casper, John  
Cowboys Stadium LP  
DCI II, INC.  
Denali Media Anchorage, Corp  
Fine Satellites & Fiber, LLC  
Global Telecom & Technology Americas, In  
Goodyear Tire & Rubber Company  
Gray Televions Licensee, LLC ( KTVF)  
Hawaiian Telecom Inc.  
Heiden, William  
Indiana Bell Telephone Company  
Kentucky RSA #3 Cellular General Partner  
Kentucky RSA #4 Cellular General Partner  
KTBV License LLC  
Lehman, Ronald G  
Lumen Technologies Inc  
Michigan Bell Telephone Company  
Microwave Video Systems, LLC  
NorthWest Suburbs Community Access Corp  
Ohio Bell GTelephone Company  
Onboard Images  
Pacific Bell Tel Com dba AT&T California  
Quick Link Connections Inc.  
Qwest Corporation  
RCC Minnesota Inc. - MN NE ND SD  
RF Film, Inc  
Remote Facilities Consulting Services  
SayRabbit LLC  
SBE Coordinator  
Southwestern Bell Telephone L.P.  
TTWN Networks, LLC

VERIZON SOUTH INC.  
Verizon Maryland, Inc.  
Verizon New England Inc.  
Verizon New Jersey, Inc.  
Verizon New York, Inc.  
Verizon North Inc.  
Verizon Northwest Inc.  
Verizon Pennsylvania, Inc.  
Verizon Virginia, Inc.  
Verizon Washington DC, Inc.  
Winged Vision Inc  
Wisconsin Bell Telephone Company  
Wolfe Air Aviation

## **4. EARTH STATION COORDINATION DATA**

This section presents the data pertinent to frequency coordination of the proposed earth station that was circulated to all carriers within its coordination contours.

# COMSEARCH

## Earth Station Data Sheet

19700 Janelia Farm Boulevard, Ashburn, VA 20147  
(703)726-5500 <http://www.comsearch.com>

Date: 01/05/2026  
Job Number: 251204COMSGE02

### Administrative Information

Status ENGINEER PROPOSAL  
Call Sign  
Licensee Code UNSPNE  
Licensee Name Universal Space Network, Inc.

### Site Information

#### NORTH POLE, AK

Venue Name SENTINEL 1,2,3 A&B  
Latitude (NAD 83) 64° 48' 15.3" N  
Longitude (NAD 83) 147° 30' 0.8" W  
Climate Zone A  
Rain Zone 2  
Ground Elevation (AMSL) 149.4 m / 490.2 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) 8.54 m / 28.0 ft

### Antenna Information

#### Transmit - FCC32

Manufacturer Datron  
Model 1453  
Gain / Diameter 44.5 dBi / 13.0 m  
3-dB / 15-dB Beamwidth 0.76° / 1.46°

Max Available RF Power (dBW/4 kHz) 6.5  
(dBW/MHz) 30.5

Maximum EIRP (dBW/4 kHz) 51.0  
(dBW/MHz) 75.0

Interference Objectives: Long Term -154.0 dBW/4 kHz 20%  
Short Term -131.0 dBW/4 kHz 0.0025%

### Frequency Information

#### Transmit 2.0 GHz

Emission / Frequency Range (MHz) 768KG2D / 2075.2664 - 2076.0344

Max Great Circle Coordination Distance 293.2 km / 182.2 mi  
Precipitation Scatter Contour Radius 314.0 km / 195.1 mi

# COMSEARCH

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### Coordination Values

### NORTH POLE, AK

Licensee Name Universal Space Network, Inc.  
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Longitude (NAD 83) 147° 30' 0.8" W  
Ground Elevation (AMSL) 149.4 m / 490.2 ft  
Antenna Centerline (AGL) 8.54 m / 28.0 ft  
Antenna Model Datron 13 meter  
Antenna Mode Transmit 2.0 GHz  
Interference Objectives: Long Term -154.0 dBW/4 kHz 20%  
Short Term -131.0 dBW/4 kHz 0.0025%  
Max Available RF Power 6.5 (dBW/4 kHz)

| Azimuth (°) | Horizon<br>Elevation (°) | Antenna<br>Discrimination (°) | Transmit 2.0 GHz      |                               |
|-------------|--------------------------|-------------------------------|-----------------------|-------------------------------|
|             |                          |                               | Horizon<br>Gain (dBi) | Coordination<br>Distance (km) |
| 0           | 0.00                     | 44.16                         | 4.50                  | 293.20                        |
| 5           | 0.00                     | 40.65                         | 4.50                  | 293.20                        |
| 10          | 0.00                     | 37.42                         | 4.50                  | 293.20                        |
| 15          | 0.28                     | 34.77                         | 4.50                  | 293.20                        |
| 20          | 0.67                     | 32.71                         | 4.50                  | 293.20                        |
| 25          | 0.32                     | 30.57                         | 4.50                  | 293.20                        |
| 30          | 0.00                     | 29.09                         | 4.50                  | 293.20                        |
| 35          | 0.00                     | 28.67                         | 4.50                  | 293.20                        |
| 40          | 0.00                     | 29.04                         | 4.50                  | 293.20                        |
| 45          | 0.00                     | 30.18                         | 4.50                  | 293.20                        |
| 50          | 0.00                     | 31.99                         | 4.50                  | 293.20                        |
| 55          | 0.00                     | 34.38                         | 4.50                  | 293.20                        |
| 60          | 0.00                     | 37.23                         | 4.50                  | 293.20                        |
| 65          | 0.00                     | 40.45                         | 4.50                  | 293.20                        |
| 70          | 0.00                     | 43.94                         | 4.50                  | 293.20                        |
| 75          | 0.00                     | 47.65                         | 4.50                  | 293.20                        |
| 80          | 0.00                     | 51.53                         | 4.50                  | 293.20                        |
| 85          | 0.00                     | 55.55                         | 4.50                  | 293.20                        |
| 90          | 0.00                     | 59.66                         | 4.50                  | 293.20                        |
| 95          | 0.00                     | 63.85                         | 4.50                  | 293.20                        |
| 100         | 0.00                     | 68.11                         | 4.50                  | 293.20                        |
| 105         | 0.00                     | 72.41                         | 4.50                  | 293.20                        |
| 110         | 0.00                     | 76.74                         | 4.50                  | 293.20                        |
| 115         | 0.00                     | 81.10                         | 4.50                  | 293.20                        |
| 120         | 0.00                     | 85.48                         | 4.50                  | 293.20                        |
| 125         | 0.00                     | 89.87                         | 4.50                  | 293.20                        |
| 130         | 0.00                     | 94.25                         | 4.50                  | 293.20                        |
| 135         | 0.00                     | 98.63                         | 4.50                  | 293.20                        |
| 140         | 0.00                     | 102.99                        | 4.50                  | 293.20                        |
| 145         | 0.00                     | 107.33                        | 4.50                  | 293.20                        |
| 150         | 0.00                     | 111.64                        | 4.50                  | 293.20                        |
| 155         | 0.00                     | 115.89                        | 4.50                  | 293.20                        |
| 160         | 0.00                     | 120.09                        | 4.50                  | 293.20                        |
| 165         | 0.00                     | 124.21                        | 4.50                  | 293.20                        |
| 170         | 0.00                     | 128.23                        | 4.50                  | 293.20                        |
| 175         | 0.00                     | 132.12                        | 4.50                  | 293.20                        |
| 180         | 0.00                     | 135.84                        | 4.50                  | 293.20                        |
| 185         | 0.00                     | 139.35                        | 4.50                  | 293.20                        |

# COMSEARCH

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### Coordination Values

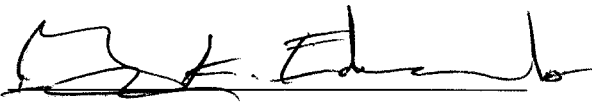
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| Azimuth (°) | Horizon<br>Elevation (°) | Antenna<br>Discrimination (°) | Transmit 2.0 GHz      |                               |
|-------------|--------------------------|-------------------------------|-----------------------|-------------------------------|
|             |                          |                               | Horizon<br>Gain (dBi) | Coordination<br>Distance (km) |
| 190         | 0.00                     | 142.58                        | 4.50                  | 293.20                        |
| 195         | 0.00                     | 145.46                        | 4.50                  | 293.20                        |
| 200         | 0.00                     | 147.88                        | 4.50                  | 293.20                        |
| 205         | 0.00                     | 149.73                        | 4.50                  | 293.20                        |
| 210         | 0.00                     | 150.91                        | 4.50                  | 293.20                        |
| 215         | 0.00                     | 151.33                        | 4.50                  | 293.20                        |
| 220         | 0.00                     | 150.96                        | 4.50                  | 293.20                        |
| 225         | 0.00                     | 149.82                        | 4.50                  | 293.20                        |
| 230         | 0.00                     | 148.01                        | 4.50                  | 293.20                        |
| 235         | 0.00                     | 145.62                        | 4.50                  | 293.20                        |
| 240         | 0.00                     | 142.77                        | 4.50                  | 293.20                        |
| 245         | 0.00                     | 139.55                        | 4.50                  | 293.20                        |
| 250         | 0.00                     | 136.06                        | 4.50                  | 293.20                        |
| 255         | 0.00                     | 132.35                        | 4.50                  | 293.20                        |
| 260         | 0.00                     | 128.47                        | 4.50                  | 293.20                        |
| 265         | 0.00                     | 124.45                        | 4.50                  | 293.20                        |
| 270         | 0.00                     | 120.34                        | 4.50                  | 293.20                        |
| 275         | 0.00                     | 116.15                        | 4.50                  | 293.20                        |
| 280         | 0.00                     | 111.89                        | 4.50                  | 293.20                        |
| 285         | 0.00                     | 107.59                        | 4.50                  | 293.20                        |
| 290         | 0.00                     | 103.26                        | 4.50                  | 293.20                        |
| 295         | 0.00                     | 98.90                         | 4.50                  | 293.20                        |
| 300         | 0.00                     | 94.52                         | 4.50                  | 293.20                        |
| 305         | 0.00                     | 90.13                         | 4.50                  | 293.20                        |
| 310         | 0.00                     | 85.75                         | 4.50                  | 293.20                        |
| 315         | 0.00                     | 81.37                         | 4.50                  | 293.20                        |
| 320         | 0.00                     | 77.01                         | 4.50                  | 293.20                        |
| 325         | 0.00                     | 72.67                         | 4.50                  | 293.20                        |
| 330         | 0.47                     | 68.47                         | 4.50                  | 293.20                        |
| 335         | 0.58                     | 64.26                         | 4.50                  | 293.20                        |
| 340         | 0.56                     | 60.09                         | 4.50                  | 293.20                        |
| 345         | 0.41                     | 55.95                         | 4.50                  | 293.20                        |
| 350         | 0.58                     | 52.02                         | 4.50                  | 293.20                        |
| 355         | 0.59                     | 48.18                         | 4.50                  | 293.20                        |

## 5. CERTIFICATION

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE FREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION, THAT I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS, THAT I HAVE EITHER PREPARED OR REVIEWED THE FREQUENCY COORDINATION DATA SUBMITTED WITH THIS APPLICATION, AND THAT IT IS COMPLETE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

BY: 

Gary K. Edwards  
Senior Manager  
COMSEARCH  
21515 Ridgetop Circle, Suite 300  
Sterling, VA 20166

DATED: January 05, 2026