Exhibit A

Frequency Coordination

# FREQUENCY COORDINATION AND INTERFERENCE ANALYSIS REPORT 

PREPARED FOR
GENERAL COMMUNICATIONS INCORPORATED CHALKYITSIK, ALASKA SATELLITE EARTH STATION

```
            PREPARED BY
            COMSEARCH
19700 Janelia Farm Boulevard
    Ashburn, Virginia 20147
        July 11, }200
```


## TABLE OF CONTENTS

1. CONCLUSIONS
2. SUMMARY OF RESULTS
3. SUPPLEMENTAL SHOWING, RE: PART 25.203(C)
4. EARTH STATION COORDINATION DATA
5. CERTIFICATION
```
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

NO GREAT CIRCLE INTERFERENCE CASES WERE IDENTIEIED DURING THE INTERFERENCE STUDY OF THE PROPOSED EARTH STATION.

NO CARRIERS REPORTED POTENTIAL INTERFERENCE CASES.

```
3. SUPPLEMENTAL SHOWING
    RE: PART 25.203(C)
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 FOR THIS EARTH STATION WAS CONDUCTED WITH THE BELOW LISTED
CARRIERS.
ALASCOM, INC.
```


## 4. EARTH STATION COORDINATION DATA

THIS SECTION PRESENTS THE DATA PERTINENT TO EREQUENCY COORDINATION OF THE PROPOSED EARTH STATION THAT WAS CIRCULATED TO ALI COMMON CARRIERS WITHIN ITS COORDINATION CONTOURS.

SATELLITE EARTH STATION FREQUENCY COORDINATION DATA 07/05/2002


## Table of Earth Station Coordination Values 07/05/2002

Earth Station Name Owner

CHALKYITSIK AK
GENERAL COMMUNICATIONS INCRPORATED
$66 \quad 39 \quad 15.7 \mathrm{~N}$
Longitude (DMS) (NAD83) 1434326.2 W
Ground Elevation ( $\mathrm{Ft} / \mathrm{m}$ ) $528.01 / \mathrm{160.93}$ AMSL
Antenna Centerline ( $\mathrm{Ft} / \mathrm{m}$ ) 6.99 / 2.13 AGL
Antenna Model SCIENTIFIC-ATLANTA 8136
Objectives: Receive $-156.0(\mathrm{dBW} / 1 \mathrm{MHz})$ Transmit -154.0 (dBW $/ 4 \mathrm{kHz}$ ) TX Power $-2.7(\mathrm{dBW} / 4 \mathrm{kHz})$

| Azimuth <br> (Deg) | Horizon Elevation Angle (Deg) | Antenna Disc. Angle (Deg) | Antenna Gain (dBi) | 4.0 GHz Coordination Distance ( Km ) | Antenna Gain (dBi) | 6.0 GHz Coordination Distance (Km) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0.00 | 124.78 | -10.20 | 284.0 | -10.40 | 169.1 |
| 5 | 0.00 | 119.81 | -10.20 | 284.0 | -10.40 | 169.1 |
| 10 | 0.00 | 114.84 | -10.20 | 284.0 | -10.40 | 169.1 |
| 15 | 0.00 | 109.86 | -10.20 | 284.0 | -10.40 | 169.1 |
| 20 | 0.00 | 104.89 | -10.20 | 284.0 | -10.40 | 169.1 |
| 25 | 0.00 | 99.91 | -10.20 | 284.0 | -10.40 | 169.1 |
| 30 | 0.00 | 94.93 | -10.20 | 284.0 | -10.40 | 169.1 |
| 35 | 0.00 | 89.95 | -10.20 | 284.0 | -10.40 | 169.1 |
| 40 | 0.00 | 84.97 | -10.20 | 284.0 | -10.40 | 169.1 |
| 45 | 0.00 | 79.99 | -10.20 | 284.0 | -10.40 | 169.1 |
| 50 | 0.00 | 75.01 | -10.20 | 284.0 | -10.40 | 169.1 |
| 55 | 0.00 | 70.04 | -10.20 | 284.0 | -10.40 | 169.1 |
| 60 | 0.00 | 65.06 | -10.20 | 284.0 | -10.40 | 169.1 |
| 65 | 0.00 | 60.09 | -10.20 | 284.0 | -10.40 | 169.1 |
| 70 | 0.00 | 55.12 | -10.20 | 284.0 | -10.40 | 169.1 |
| 75 | 0.00 | 50.15 | -10.20 | 284.0 | -10.40 | 169.1 |
| 80 | 0.00 | 45.19 | -9.24 | 290.1 | -9.44 | 172.8 |
| 85 | 0.00 | 40.23 | -8.25 | 296.6 | -8.45 | 176.6 |
| 90 | 0.00 | 35.29 | -6.32 | 309.8 | -6.52 | 184.1 |
| 95 | 0.00 | 30.36 | -5.27 | 317.7 | -5.47 | 188.1 |
| 100 | 0.00 | 25.46 | -3.38 | 331.3 | -3.58 | 195.4 |
| 105 | 0.00 | 20.60 | -0.56 | 352.3 | -0.76 | 204.5 |
| 110 | 0.00 | 15.82 | 2.31 | 374.5 | 2.11 | 215.9 |
| 115 | 0.00 | 11.23 | 5.57 | 400.4 | 5.37 | 230.1 |
| 120 | 0.00 | 7.19 | 7.80 | 419.4 | 7.60 | 240.5 |
| 125 | 0.00 | 5.22 | 11.35 | 557.6 | 11.15 | 321.5 |
| 130 | 0.00 | 6.55 | 8.71 | 501.6 | 8.51 | 282.7 |
| 135 | 0.00 | 8.03 | 7.80 | 459.6 | 7.60 | 257.0 |
| 140 | 0.00 | 9.40 | 7.40 | 433.5 | 7.20 | 243.7 |
| 145 | 0.00 | 10.65 | 6.15 | 412.0 | 5.95 | 234.2 |
| 150 | 0.00 | 11.75 | 5.05 | 396.0 | 4.85 | 227.7 |
| 155 | 0.00 | 12.71 | 4.09 | 388.2 | 4.60 | 226.6 |
| 160 | 0.00 | 13.50 | 3.30 | 382.4 | 4.10 | 224.4 |
| 165 | 0.00 | 14.13 | 2.80 | 378.4 | 3.47 | 221.7 |
| 170 | 0.00 | 14.59 | 2.80 | 378.4 | 3.01 | 219.7 |
| 175 | 0.00 | 14.86 | 2.80 | 378.4 | 2.74 | 218.6 |
| 180 | 0.00 | 14.95 | 2.80 | 378.4 | 2.65 | 218.2 |

## Table of Earth Station Coordination Values 07/05/2002

Earth Station Name Owner Owne $\begin{array}{llllll}\text { Latitude (DMS) } & \text { (NAD83) } & 66 & 39 & 15.7 & \mathrm{~N} \\ \text { Longitude (DMS) } & \text { (NAD83) } 143 & 43 & 26.2 & \mathrm{~W}\end{array}$ Ground Elevation ( $\mathrm{Ft} / \mathrm{m}$ ) $528.01 / \mathrm{160.93}$ AMSL Antenna Centerline (Ft/m) 6.99 / 2.13 AGL Antenna Model SCIENTIFIC-ATLANTA 8136 Objectives: Receive $\quad-156.0$ (dBW /1 MHz) Transmit $-154.0(\mathrm{dBW} / 4 \mathrm{kHz})$ TX Power $-2.7(\mathrm{dBW} / 4 \mathrm{kHz})$

| Azimuth (Deg) | Horizon Elevation Angle (Deg) | Antenna Disc. Angle (Deg) | Antenna Gain (dBi) | 4.0 GHz Coordination Distance (Km) | Antenna Gain (dBi) | 6.0 GHz Coordination Distance (Km) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 185 | 0.00 | 14.85 | 2.80 | 378.4 | 2.75 | 218.6 |
| 190 | 0.00 | 14.58 | 2.80 | 378.4 | 3.02 | 219.8 |
| 195 | 0.00 | 14.12 | 2.80 | 378.4 | 3.48 | 221.7 |
| 200 | 0.00 | 13.49 | 3.31 | 382.5 | 4.11 | 224.4 |
| 205 | 0.00 | 12.70 | 4.10 | 388.3 | 4.60 | 226.6 |
| 210 | 0.00 | 11.74 | 5.06 | 396.6 | 4.86 | 227.8 |
| 215 | 0.00 | 10.64 | 6.16 | 411.2 | 5.96 | 233.9 |
| 220 | 0.00 | 9.40 | 7.40 | 431.9 | 7.20 | 243.1 |
| 225 | 0.00 | 8.04 | 7.80 | 457.0 | 7.60 | 255.6 |
| 230 | 0.00 | 6.55 | 8.69 | 497.3 | 8.49 | 279.9 |
| 235 | 0.00 | 6.46 | 8.88 | 528.7 | 8.68 | 301.2 |
| 240 | 0.00 | 9.48 | 7.32 | 415.2 | 7.12 | 238.2 |
| 245 | 0.00 | 13.71 | 3.09 | 380.7 | 3.89 | 223.5 |
| 250 | 0.00 | 18.33 | 0.80 | 362.8 | 0.60 | 209.8 |
| 255 | 0.00 | 23.10 | -2.06 | 341.0 | -2.26 | 200.4 |
| 260 | 0.00 | 27.95 | -4.38 | 324.1 | -4.58 | 191.6 |
| 265 | 0.00 | 32.84 | -5.77 | 314.2 | -5.97 | 186.2 |
| 270 | 0.00 | 37.75 | -7.30 | 303.0 | -7.50 | 180.3 |
| 275 | 0.00 | 42.69 | -8.74 | 293.4 | -8.94 | 174.7 |
| 280 | 0.00 | 47.63 | -9.73 | 287.0 | -9.93 | 170.9 |
| 285 | 0.00 | 52.59 | -10.20 | 284.0 | -10.40 | 169.1 |
| 290 | 0.00 | 57.54 | -10.20 | 284.0 | -10.40 | 169.1 |
| 295 | 0.00 | 62.51 | -10.20 | 284.0 | -10.40 | 169.1 |
| 300 | 0.00 | 67.47 | -10.20 | 284.0 | -10.40 | 169.1 |
| 305 | 0.00 | 72.44 | -10.20 | 284.0 | -10.40 | 169.1 |
| 310 | 0.00 | 77.41 | -10.20 | 284.0 | -10.40 | 169.1 |
| 315 | 0.00 | 82.39 | -10.20 | 284.0 | -10.40 | 169.1 |
| 320 | 0.00 | 87.36 | -1.0.20 | 284.0 | -10.40 | 169.1 |
| 325 | 0.00 | 92.33 | -10.20 | 284.0 | -10.40 | 169.1 |
| 330 | 0.00 | 97.30 | -10.20 | 284.0 | -10.40 | 169.1 |
| 335 | 0.00 | 102.27 | -10.20 | 284.0 | -10.40 | 169.1 |
| 340 | 0.00 | 107.24 | -10.20 | 284.0 | -10.40 | 169.1 |
| 345 | 0.00 | 112.21 | -10.20 | 284.0 | -10.40 | 169.1 |
| 350 | 0.00 | 117.18 | -10.20 | 284.0 | -10.40 | 169.1 |
| 355 | 0.00 | 122.14 | -10.20 | 284.0 | -10.40 | 169.1 |


#### Abstract

I HEREBY CERTIFY THAT I AM THE TECHNICALLY QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION OF THE EREQUENCY COORDINATION DATA CONTAINED IN THIS APPLICATION. I AM FAMILIAR WITH PARTS 101 AND 25 OF THE FCC RULES AND REGULATIONS. 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.


