

COMPREHENSIVE TECHNICAL EXHIBIT

K257AZ, Richfield, UT

DISCUSSION

Applicant seeks a Minor Modification to modify FM Translator K257AZ(CP), Richfield, UT with a change in ERP and antenna pattern, serving as a "Fill-in" for full service KMXD HD3, Monroe, UT, FID#164258.

Applicant seeks waiver of section 74.1204 with regard to 2nd adjacent FM Translator K255AD.

LACK OF CONTOUR OVERLAP

The following study (**Figure 1**) reveals the lack of any contour overlap with authorized 1st, 2nd, 3rd adjacent and I.F. related facilities, excepting FM Translator K255AD, Rural Garfield, Etc., UT, FID # 23184 for which a 2nd adjacent waiver is being sought.

| Airfree Wireless, Inc. | | | | | | | | | | | |
|------------------------|---------|--|-----|-------|-----------------|--------------|---------|---------|----------------------------|-----------------|----------|
| REFERENCE | | CH# 257D - 99.3 MHz, Pwr= 0.25 kW DA, HAAT= 456.2 M, COR= 2696 M | | | | | | | | DISPLAY DATES | |
| 38 38 00.9 N. | | Average Protected F(50-50)= 27.5 km | | | | | | | | DATA | 11-23-20 |
| 112 03 37.7 W. | | Standard Directional | | | | | | | | SEARCH | 11-23-20 |
| CH | CALL | TYPE | ANT | AZI. | DIST | LAT. | Pwr(kw) | INT(km) | PRO(km) | *IN* | *OUT* |
| CITY | | STATE | | <-- | FILE # | LNG. | HAAT(M) | COR(M) | LICENSEE | (Overlap in km) | |
| 257D | K257AZ! | CP | CN | 0.0 | 0.00 | 38 38 00.90 | 0.010 | | ---Reference--- | | |
| Richfield | | | UT | 0.0 | 0000119007 | 112 03 37.70 | 15 | 2696 | Airfree Wireless, Inc. | | |
| 257D | K257AZ! | LIC | DCN | 19.2 | 12.13 | 38 44 11.80 | 0.076 | | ---Reference--- | | |
| Richfield | | | UT | 199.3 | BLFT19820413II | 112 00 51.70 | 15 | 2008 | Airfree Wireless, Inc. | | |
| 259D | K259AR | LIC | DCN | 327.8 | 30.49 | 38 51 55.80 | 0.076 | 0.1 | 11.3 | -9.3* | 18.2 |
| Fillmore, Etc. | | | UT | 147.7 | BLFT20050225ABM | 112 14 53.70 | 905 | 3128 | Airfree Wireless, Inc. | | |
| 255D | K255AD | LIC | VN | 186.0 | 10.83 | 38 32 11.90 | 0.010 | 0.2 | 18.0 | 3.1 | -7.4* |
| Rural Garfield, Etc | | | UT | 6.0 | BLFT19920902TB | 112 04 24.70 | 967 | 3430 | Garfield County | | |
| 257D | K257AC | LIC | DHN | 129.0 | 61.68 | 38 16 59.90 | 0.036 | 50.1 | 13.0 | 10.3 | 39.7 |
| Teasdale-Torrey | | | UT | 309.3 | BLFT178 | 111 30 39.60 | 50 | 2522 | Wayne County | | |
| 256A | KMGR | LIC | CN | 4.7 | 122.61 | 39 43 57.80 | 0.640 | 39.8 | 25.1 | 41.8 | 32.3 |
| Nephi | | | UT | 184.7 | BLH20160831AAJ | 111 56 37.80 | 308 | 2050 | Sanpete County Broadcastin | | |
| 254D | K254CT | LIC | DCN | 18.1 | 80.46 | 39 19 16.80 | 0.250 | 1.1 | 37.6 | 39.5 | 41.7 |
| Gunnison | | | UT | 198.2 | BLFT20161118ACC | 111 46 13.70 | | 2598 | Sanpete County Broadcastin | | |
| 257D | K257AG | LIC | DVN | 207.6 | 79.46 | 37 59 58.90 | 0.078 | 10.5 | 3.1 | 59.1 | 39.6 |
| Panguitch | | | UT | 27.4 | BLFT273 | 112 28 52.70 | 266 | 2496 | Garfield County | | |
| 258C | KJMY | LIC | CN | 357.8 | 219.68 | 40 36 28.80 | 40.000 | 117.8 | 74.5 | 62.3 | 76.4 |
| Bountiful | | | UT | 177.7 | BLH19880311KC | 112 09 35.70 | 900 | 2611 | Citicasters Licenses, Inc. | | |
| 260A | KPVO | CP | NCN | 22.1 | 109.58 | 39 32 44.90 | 2.300 | 1.8 | 28.9 | 68.7 | 78.8 |
| Fountain Green | | | UT | 202.4 | BPH20190807AAT | 111 34 45.70 | -54 | 1848 | Valleydale Broadcasting, L | | |
| 260A | KPVO | LIC | CN | 17.6 | 115.97 | 39 37 36.80 | 0.100 | 0.7 | 5.6 | 75.0 | 105.3 |
| Fountain Green | | | UT | 197.9 | BLH20150820CNF | 111 38 59.70 | -234 | 1835 | Valleydale Broadcasting, L | | |
| 254D | K254BX | LIC | CN | 263.5 | 107.20 | 38 31 04.80 | 0.010 | 0.2 | 17.3 | 84.6 | 89.8 |
| Milford | | | UT | 82.7 | BLFT20140714ABM | 113 17 05.80 | 1195 | 2956 | Iron County | | |
| 204C0 | KCHG | APP | CN | 218.0 | 111.95 | 37 50 14.90 | 0.099 | 81.3 | 53.9 | 24.5R | 87.5M |
| Cedar City | | | UT | 37.5 | 0000125214 | 112 50 43.80 | | 1816 | | | |

258D

Terrain database is NGDC 30 SEC, R= 73.215 qualifying spacings or FCC minimum spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference Zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding. Call signs with exclamation marks need not be protected.
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
"*"affixed to 'IN' or 'OUT' values = site inside restricted contour.
« = Station meets FCC minimum distance spacing for its class.

2nd adjacent waiver requested

Figure 1

Waiver Request of Section 74.1204 and Showing of Compliance

With respect to K255AD:

The proposed FM translator is located within the protected 60 dBu F(50,50) contour of 2nd adjacent channel FM Translator K255AD (see **Figure 1**), for which a 2nd adjacent waiver is requested.

The predicted F(50,50) field strength of K255AD at the proposed translator site is 65.12 dBu (free space equation). Using the Undesired-to-Desired method for calculating proposed interference, the proposed interfering contour with respect to K255AD is 105.12 dBu (65.12 + 40) (free space method employed). This interfering signal would, in the worst case, extend 615.2 meters from the proposed antenna.

The interference area described above is located at a remote mountaintop location. Any structures in the immediate area house communications equipment only, and have no regular human occupancy.

To further support this waiver request, an interference area represented by a circle having a radius of 615 meters from the proposed translator site has been plotted on a section of the Beaver, UT 7.5 min USGS Topographical Map (see **Figure 2**). In addition a plot of the interfering contour (105.12 dBu F(50,10)) of the facility has been overlaid on a recent aerial photo, to account for any newer development in the area (see **Figure 3**).

Since no population inhabits the interference area, the Applicant respectfully requests waiver of the FM translator contour overlap requirements with respect to 2nd adjacent FM Translator K255AD as permitted in CFR Section 74.1204.

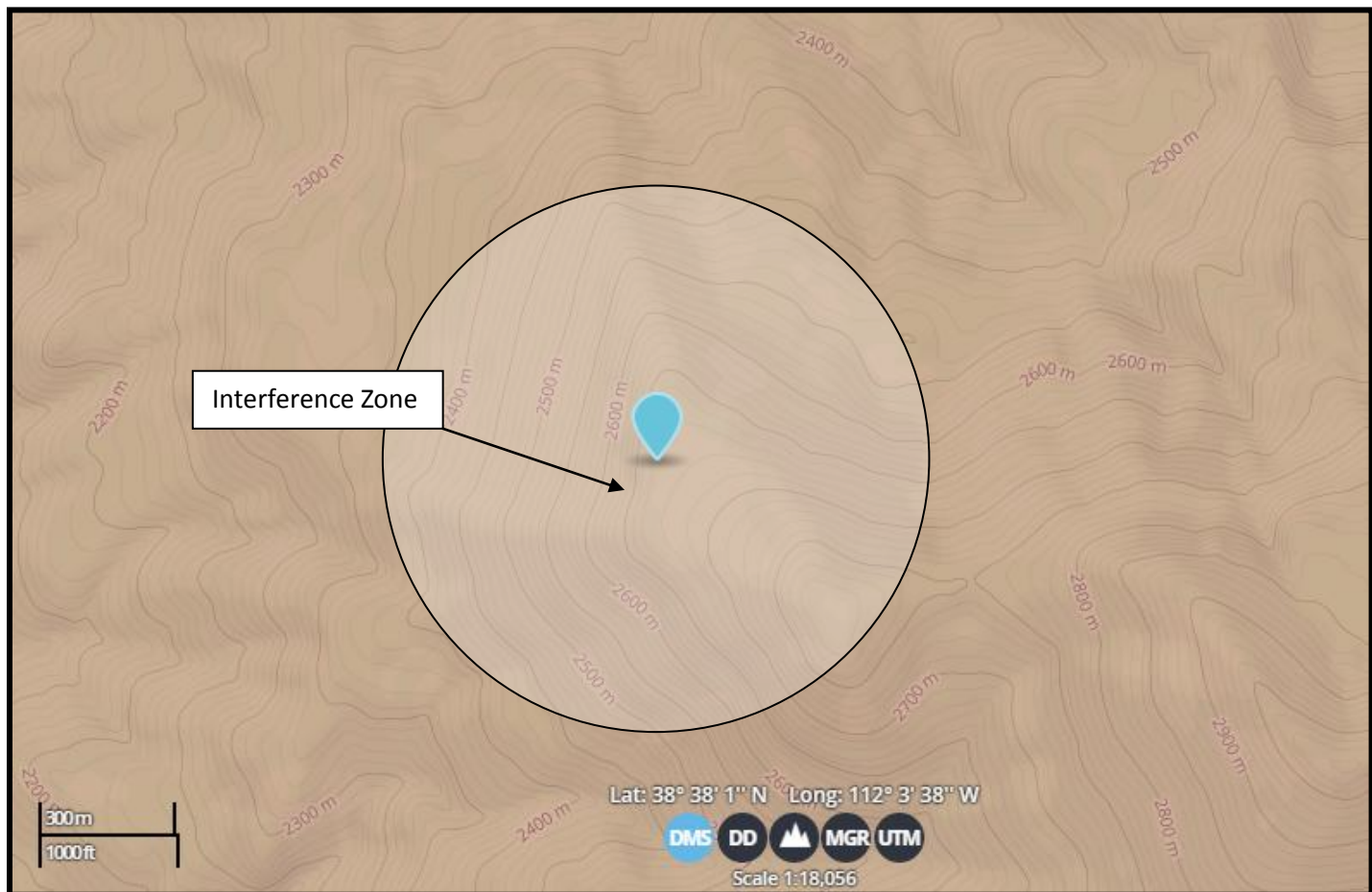


Figure 2

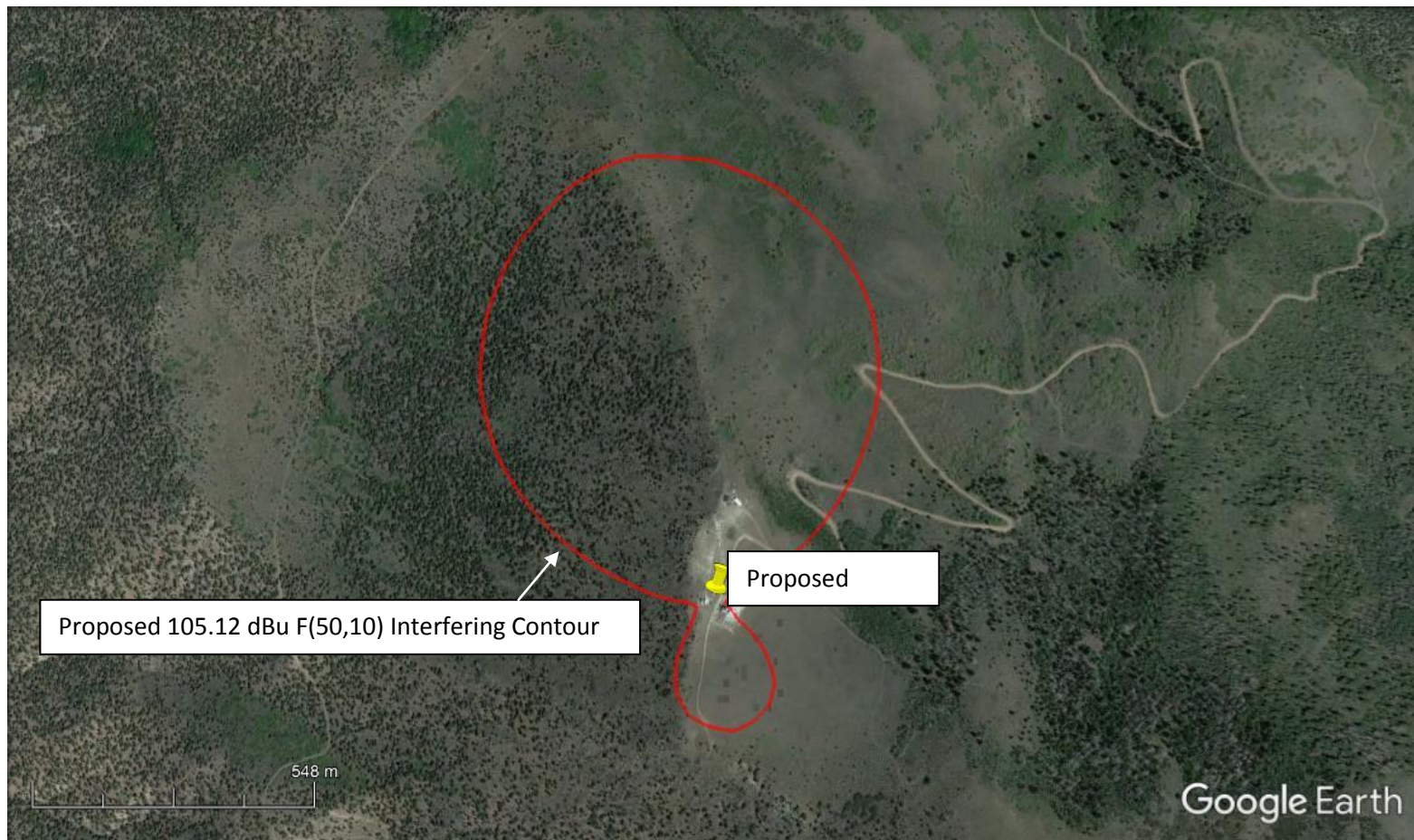


Figure 3

OVERLAPPING 60 dBu CONTOUR MINOR MODIFICATION QUALIFICATION

Figure 4 below demonstrates the overlapping 60 dBu contours of the licensed and proposed facilities.

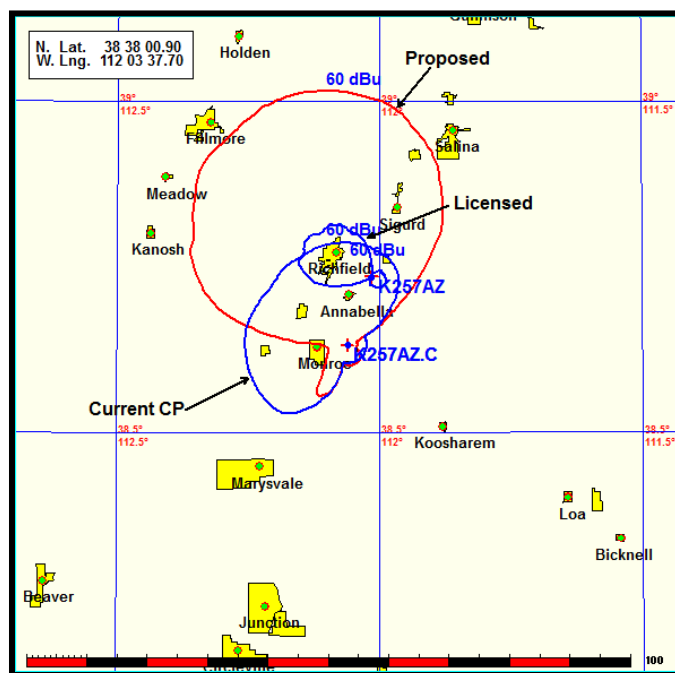


Figure 4

QUALIFICATION AS “FILL-IN” FOR PRIMARY KMXD-FM HD3 (Figure 5)

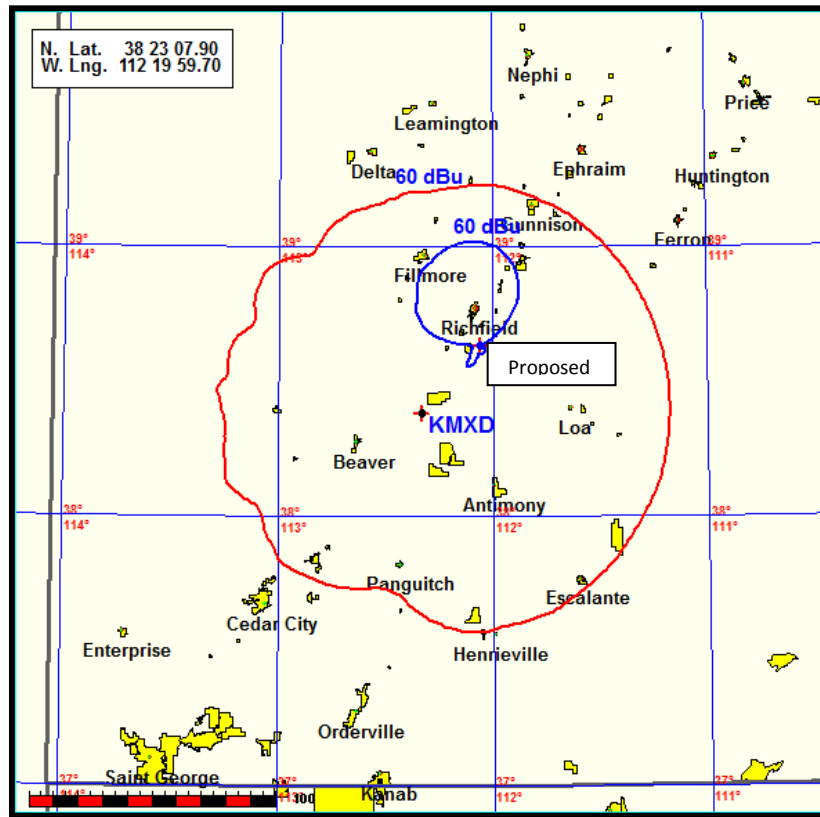


Figure 5

ENVIRONMENTAL COMPLIANCE:

The proposed facility (antenna) will be installed on an existing tower at the established Cove Mountain communications site. There will be no significant environmental impact as outlined in 47 CFR 1.1307.

The proposed facility (250 watts H&V @ 15 meters CORAGL) will be combined with FM Translator K251AQ (250 watts H&V @ 15 meters CORAGL) into a Scala CA2-CP modified for higher power input.

The FCC's FMModel software for a worst case EPA Type 1 "ring-and-stub" unit indicates RFR exposure 2 meters AGL of 59.47 microwatts/cm² for each facility at 3.6 meters from the base of the tower, for a combined total of 118.94 microwatts/cm². This level of exposure is well below the limits for both uncontrolled and controlled access.

Access to the transmitting site will be restricted and appropriately marked with warning signs. When it becomes necessary for workers to ascend the tower, appropriate measures, such as reduction or shut down

of power if necessary, shall be taken to ensure that the human exposure to radiofrequency radiation will not exceed the FCC guidelines.