

TECHNICAL EXHIBIT
APPLICATION FOR CONSTRUCTION PERMIT
NEW NCE-FM STATION
ROUND MOUNTAIN, NEVADA
CH 212A 0.018 KW (ND) 650 M

Technical Narrative

The technical exhibit of which this narrative is part was prepared in response to the FCC Public Notice (Public Notice) dated April 21, 2021 and entitled “Media Bureau Announces NCE-FM New Station Application Filing Window; Window Open from November 2, 2021 to November 9, 2021” (DA 21-463). Specifically, this technical exhibit was prepared in support of a complete FCC Form 340 as required by the Public Notice for a proposed new NCE-FM station to operate on channel 212A at Round Mountain, Nevada.¹

Proposed Facility

It is proposed to operate on reserved band channel 212A (90.3 MHz) at Round Mountain, Nevada from an existing tower with a non-directional (ND) antenna maximum effective radiated power (ERP) of 0.018 kW (horizontal and vertical polarization) and an antenna height above average terrain (HAAT) of 650 meters.

City Coverage

Figure 1 is a map showing the predicted 60 dBu contour for the proposed facility. As indicated, the proposed 60 dBu will encompass 100% of the Round Mountain community limits², which comports with Section 73.515.

The predicted 60 dBu contour was calculated in accordance with Section 73.313 of the FCC Rules. The average terrain elevations from 3 to 16 km were computed along 72 equally spaced radials using the NED 1-second terrain

¹ Round Mountain, Nevada, although not incorporated or listed in the U.S. Census, has sufficient indicia to qualify as a community for allotment purposes. Specifically, based on an internet search it was determined that Round Mountain has a fire department, post office, a E.M.S. ambulance service, an elementary school, a high school, a library, a community center, a grocery store, two gym facilities (one with a weight room, treadmill room and two racquetball courts), a recreational park, a gas station/laundromat, an indoor swimming pool, a golf course, three baseball fields, a fitness trail around a gym and baseball fields, a bed & breakfast, a few churches, two tennis courts, an RV park, a restaurant/bar and many children’s playgrounds.

² The Round Mountain community limits have been approximated.

database. The overall antenna HAAT was determined according to the provisions of Section 73.313 of the FCC Rules. The antenna radiation center HAAT in each radial direction and the ERP were used in conjunction with the propagation prediction curves of Section 73.333 to determine the distances to contours.

Allocation Studies

Figure 2 provides a summary of an allocation study for the proposed facility. There are no intermediate frequency (IF) related facilities in close proximity to the proposed facility. The tabulation in Figure 2 lists the results of a numerical analysis of the potential for contour overlap for all nearby co-channel and first, second, and third adjacent channel facilities. For the purposes of the numerical study, the maximum HAAT and ERP values were used in calculating the maximum distance to the predicted service and interfering contours.

Figure 3 is a map depicting the predicted protected and interfering contours of those stations close enough to warrant further study pursuant to Section 73.509. This is based on the numerical analysis in Figure 2, where there is an indication of the potential for prohibited overlapping contours. As indicated in Figure 3 the proposed operation complies with the requirements of Section 73.509.

TV Channel 6 Protection

It is required that NCE-FM facilities in the reserved band (Chs. 201-220) provide interference protection to affected TV channel 6 facilities as defined in Section 73.525. Pursuant to Section 73.525 (a) (1), all pertinent TV channel 6 facilities within 195 kilometers of a proposed channel 212 NCE-FM facility must be protected. It has been determined that there are no pertinent channel 6 facilities located within 195 kilometers of the proposed site. Therefore, the proposed NCE-FM facility complies to the provisions of Section 73.525.

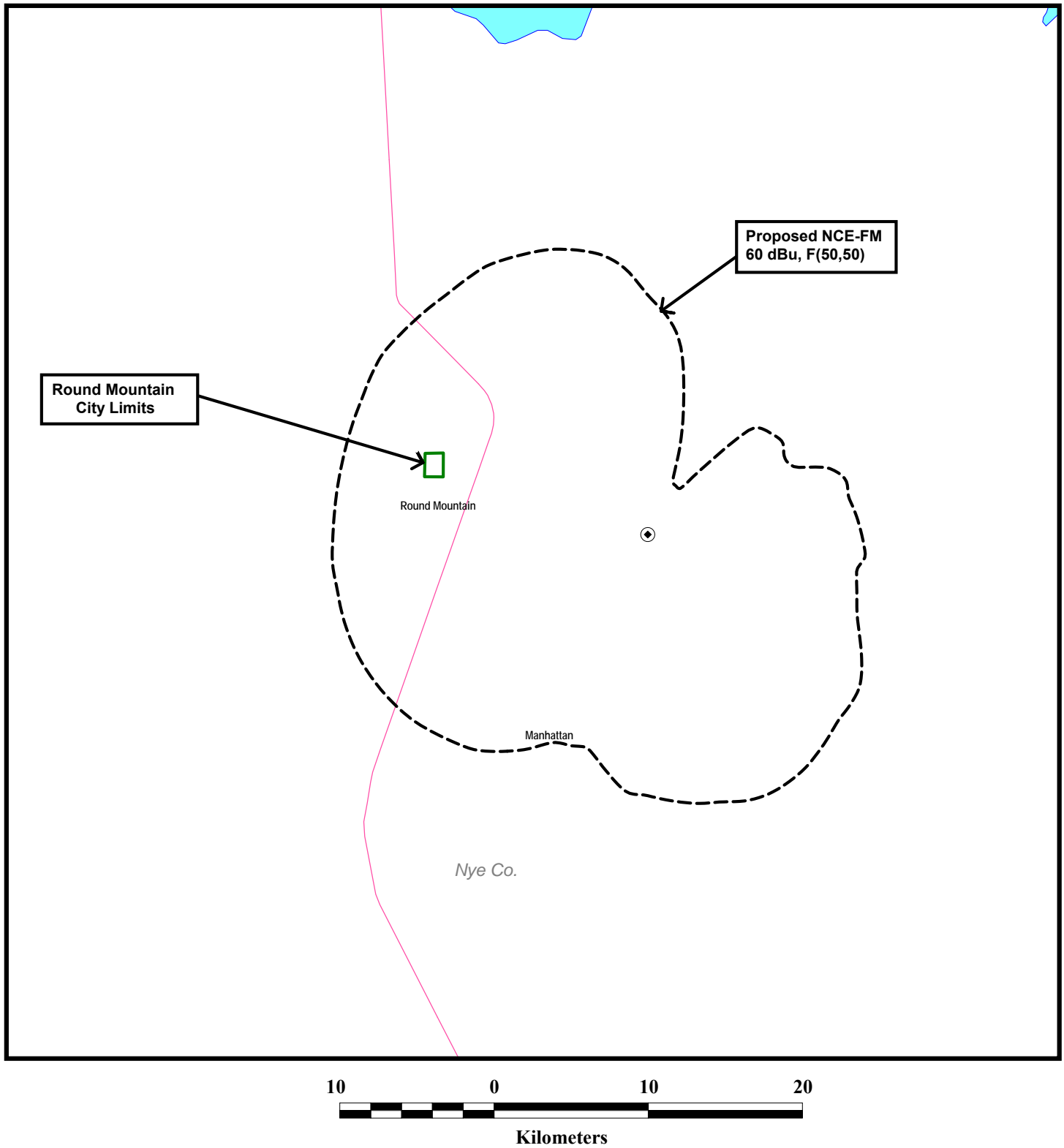
International Borders

The proposed site is located 1,149 kilometers from the closest point of the Canadian border and 675 kilometers from the closest point of the Mexican border.

As these distances are outside the respective coordination zones of each country, notification of the proposal to either Canada or Mexico is not necessary.

Environmental Considerations

The proposed operation is exempt from RFR exposure evaluation as the total ERP is less than 100 Watts.



COMPLIANCE WITH SECTION 73.515

PROPOSED NEW FM STATION
ROUND MOUNTAIN, NEVADA
CH 212A (90.3 MHZ) 0.018 KW (ND) 650 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida

FM Contour Study LMS

du Treil, Lundin, & Rackley, Inc., Sarasota, Florida

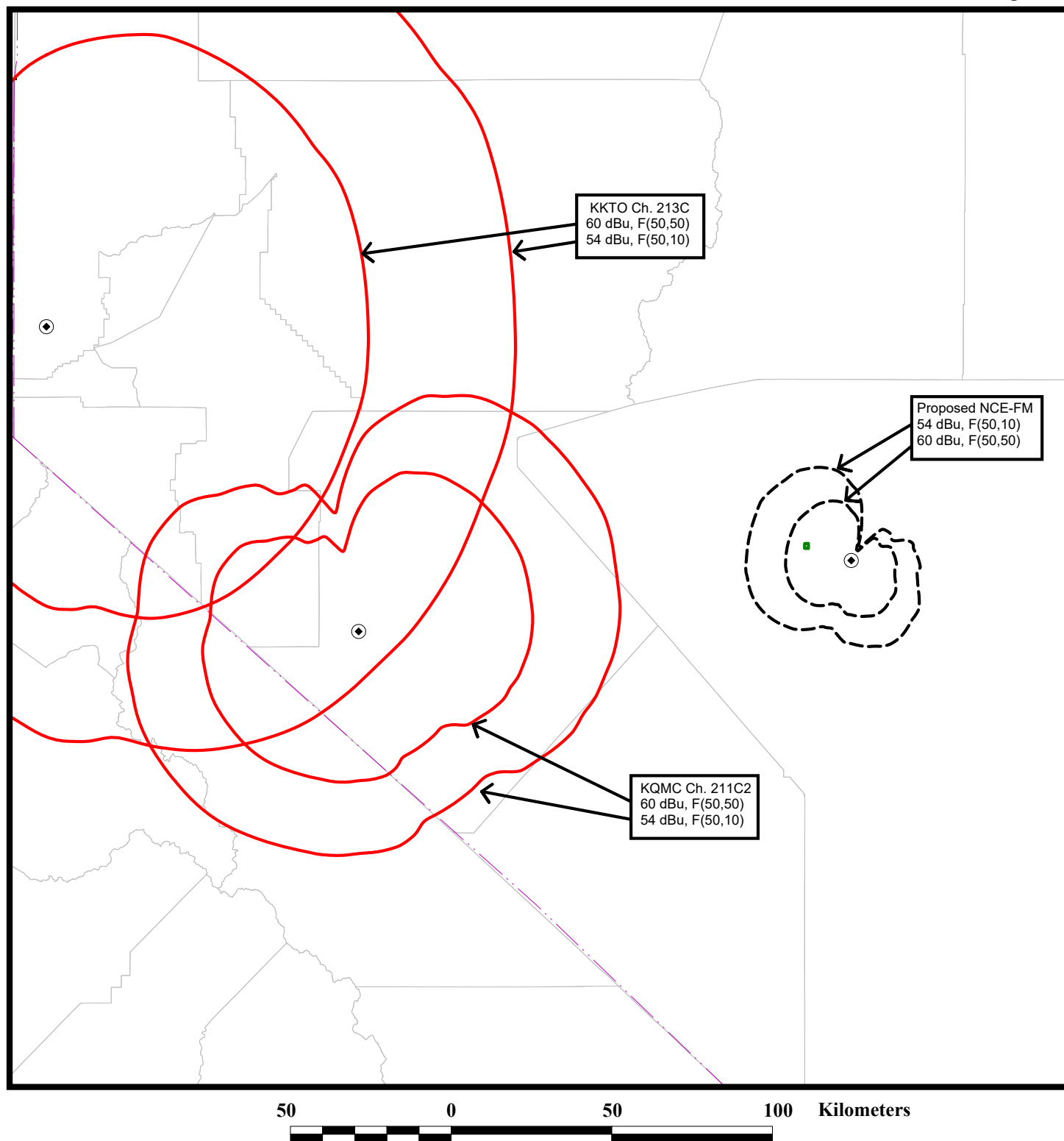


Channel: 212 **Coordinates:** 038-39-22.7 116-59-58.2 (NAD 83) **ERP:** 0.018 kW **Max. HAAT:** 1013 m

Comment: Proposed New NCE-FM Ch. 212A

| <i>Callsign</i> | <i>Chan.</i> | <i>Service</i> | <i>Status</i> | <i>Freq.</i> | <i>City</i> | | <i>State</i> | <i>Co.</i> | <i>Rec.</i> | <i>Latitude</i> | <i>Dist. (km)</i> | <i>Sep. (km)</i> | <i>Spac. (km)</i> | |
|---|--------------|----------------|---------------|--------------|---|---------------|-----------------|-----------------|-------------|------------------|--------------------|------------------|-------------------|-------|
| <i>Facility ID</i> | <i>ARN</i> | | | <i>Class</i> | <i>DA</i> | <i>73.215</i> | <i>ERP (kW)</i> | <i>HAAT (m)</i> | | <i>Longitude</i> | <i>Bear. (deg)</i> | <i>Comment</i> | | |
| KQMC | 211 | FM | L2C | 90.1 | HAWTHORNE | | | NV | US | C | 38-27-27.7 | 155.5 | 105.08 | 50.42 |
| 79036 | BLANK | BLED-20050719/ | C2 | NDI | | | 0.48 | 957 | | 118-45-55.4 | 262.37 | CLEAR | | |
| KQMC 60.0 dBu desired distance: 55.6 km | | | | | Proposed 54.0 dBu undesired distance: 33.6 km | | | | | | | | | |
| Proposed 60.0 dBu desired distance: 20.8 km | | | | | KQMC 54.0 dBu undesired distance: 84.3 km | | | | | | | | | |
| KKTO | 213 | FM | L2C | 90.5 | TAHOE CITY | | | CA | US | C | 39-18-37.6 | 260.33 | 168.26 | 92.07 |
| 8331 | BLANK | BLED-19970902/ | C | NDI | | | 38 | 896 | | 119-53-04.6 | 287.17 | CLEAR | | |
| KKTO 60.0 dBu desired distance: 100.8 km | | | | | Proposed 54.0 dBu undesired distance: 33.6 km | | | | | | | | | |
| Proposed 60.0 dBu desired distance: 20.8 km | | | | | KKTO 54.0 dBu undesired distance: 147.4 km | | | | | | | | | |

Figure 3



SECTION 73.509 COMPLIANCE

PROPOSED NEW FM STATION
ROUND MOUNTAIN, NEVADA
CH 212A (90.3 MHz) 0.018 KW (ND) 650 M

du Treil, Lundin & Rackley, Inc. Sarasota, Florida