

TECHNICAL EXHIBIT  
APPLICATION FOR FM CONSTRUCTION PERMIT  
RADIO STATION KGDQ(FM)  
CENTENNIAL, COLORADO

March 2, 2007

CH 270C3    9.5 KW    163 M

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Technical Narrative

The technical exhibit of which this narrative is part was prepared in support of an application for radio station KGDQ(FM) licensed to Colorado Springs, Colorado to relocate its facility to serve a new community of license, Centennial, Colorado, on Channel 270C3. The herein proposed operation will permit a maximum equivalent Class C3 facility with a non-directional classified transmitting antenna.

Proposed Allotment Reference Point

This application seeks authorization for KGDQ(FM) to modify its community of license. Since the herein proposed transmitter site requests contour protection for a short-spaced station under Section 73.215 of the Commission's Rules (as described below), a fully-spaced theoretical allotment reference location, described by the following geographic coordinates, is proposed.

39° 27' 10" North Latitude  
104° 54' 16" West Longitude

Figure 1 is a topographic site map showing the allotment reference site. As can be seen from Figure 1, the assumed reference site could be suitable for a transmission facility. Figure 2 is an Allocation Study for Channel 270C3 at the reference allotment site. The proposed allotment reference site satisfies the Commission's minimum distance

separations contained in Section 73.207(b) of the Commission's Rules except with respect to the licensed facility associated with station KCUV(FM) on Channel 272A assigned to Greenwood Village, Colorado (FCC File Number: BLH-20051110ACE). However, KCUV(FM) has a pending application for construction permit (FCC File Number: BPH-20061002BTX) which is fully-spaced to the herein proposed allotment reference point. Therefore, upon authorization and construction of the KCUV(FM) pending application, the herein proposed allotment reference point would become fully-spaced to KCUV(FM).

Figure 3 is a coverage map showing that the allotment site 70 dBu reference contour entirely encompasses the principal community of Centennial, Colorado.<sup>1</sup>

#### Proposed Transmitter Location

It is proposed to co-locate KGDQ(FM) with radio station KJMN(FM) on Channel 221C2 assigned to Castle Rock, Colorado. A map showing the transmitter site location is provided in Figure 4. A sketch showing the proposed antenna and supporting structure is shown on Figure 5. Since the overall tower height is less than 200 feet and not located near any public airports, a tower registration number is not necessary.

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<sup>1</sup> At the allotment stage, the Commission typically employs the reference city coverage contour, assuming uniform terrain in all radial directions, to determine if an allotment site will satisfy the Commission's coverage criteria. This was used in this instance.

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Interference Concerns

The 115 dBu predicted "blanketing" contour of the proposed station would extend radially less than 1.2 kilometer from the transmitting site. No interference is expected. However, the applicant recognizes its responsibility to resolve complaints of interference, including blanketing and receiver-induced interference as required by Sections 73.315(b), 73.316(e) and 73.318.

Coverage Contours

The predicted coverage contours for the proposed operation were calculated in accordance with the provisions of Section 73.313. In accordance with current FCC practice, the distances to the contours were calculated without consideration given to terrain roughness correction factors.

The average terrain elevations from 3 to 16 kilometers along eight radials evenly spaced at 45-degree intervals were obtained from the co-located KJMN(FM) application for construction permit. The terrain elevations were then used in combination with the effective radiated power for determining the distances to coverage contours.

As can be calculated from the map provided in Figure 6, the FCC predicted 70 dBu coverage contour encompasses all of Centennial, Colorado.

Allocation Study

Sheet 1 of Figure 7 is an allocation study for channel 270C3 at the proposed site. The figure contains a tabulation of actual and required separation distances from other pertinent stations and allotments. The proposed site meets the FCC's minimum separation requirements, specified in Section 73.207(b) of the Commission's Rules, to all assignments and stations except toward KLDV(FM) on Channel 216C at Morrison, Colorado, licensed KCUV(FM) on Channel 272A assigned to Greenwood Village, Colorado and an application for KSMT(FM) on Channel 271A assigned to Breckenridge, Colorado.

With respect to KLDV(FM), an application for license, BLED-20060803AOY, has been filed for its outstanding construction permit, BPED-20040315ACB, which is fully-spaced to the herein facility. Therefore, KLDV(FM) is no longer an allocation issue.

With respect to KCUV(FM), an application for construction permit is pending, BPH-20061002BTX, that would be fully-spaced to there herein proposed facility. Therefore, upon implementation of this KCUV(FM) facility, KCUV(FM) would no longer an allocation issue.

With respect to KSMT(FM), an application for construction permit is pending, BPH-20061002BWT, that is short-spaced to the herein facility. However, Section 73.215 processing is requested toward this application as shown in Sheet 2 of Figure 7.

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Community of License Change - Section 307(b)

*1. Proposal*

It is proposed to reallocate Channel 270C2 from Colorado Springs, Colorado to Channel 270C3 at Centennial, Colorado.

*2. City Populations and Local Service*

Colorado Springs city has a 2000 U.S. Census population of 360,890 persons. Colorado Springs would have fourteen assigned aural services remaining, six AM stations and eight FM stations. Centennial city has a U.S. Census population of 98,243 persons and has no assigned local FM or AM service. Thus, the proposal will result in first local aural transmission service.

*3. Urbanized Area Considerations*

Centennial city is encompassed by the Denver Urbanized area. The proposed 70 dBu contour for the allotment reference coordinates will encompass 22% of the Denver Urbanized population and 27% of its area. The existing Channel 270C2 at Colorado Springs 70 dBu contour encompasses 44% of the Colorado Springs Urbanized population and 54% of its area. The city of Colorado Springs is within the Colorado Springs Urbanized Area. These calculations are based upon the licensed Channel 270C2 Colorado Springs transmitter site and the herein proposed Channel 270C3 Centennial allotment reference point assuming uniform terrain and maximum station class facilities.

#### *4. 60 dBu Gain and Loss Areas and Available Aural Services*

The Channel 270C2 Colorado Springs loss area contains 514,000 persons over 5,220 square kilometers. The Channel 270C3 Centennial gain area contains 1,251,000 persons over 1,500 square kilometers. Therefore, there would be "net" population gain of 737,000 persons. These calculations are based upon the licensed Channel 270C2 Colorado Springs transmitter site and the herein proposed Channel 270C3 Centennial allotment reference point assuming uniform terrain and maximum station class facilities.

As can be seen from the map provided in Figure 8, both the loss and gain areas may be considered as "well served," with more than 5 full-time aural services remaining in the loss area and already more than 5 full-time aural services existing in the gain area.

#### *5. 70 dBu and 60 dBu Coverage*

The following tabulates the area and population within the 70 dBu and 60 dBu contours (using actual terrain) depicted in Figure 6.

Contour	Population (2000 Census)	Area (sq. km)
70 dBu	843,000	2,110
60 dBu	2,002,500	5,440

Contour locations calculated in accordance with the provisions of Section 73.313. Population calculated using a computer program that utilizes the 2000 U.S. Census database of "population centroids".



*6. Protected FM and AM Services Available*

It has been determined that there are at least 19 protected FM services available to Colorado Springs and at least 30 protected FM services available to Centennial as shown in Figure 9. Furthermore, KGDQ(FM) already provides protected service to Centennial, Colorado. The actual FCC predicted coverage contours calculated pursuant to Section 73.313 of the Commission's Rules was employed for this analysis.

Radiofrequency Electromagnetic Field Exposure Analysis

Upon construction of the herein proposed facility, the permittee will undertake a ground level radiofrequency electromagnetic exposure survey to ensure no assessable areas at ground level exceed the applicable Commission's maximum permitted exposure limitations.

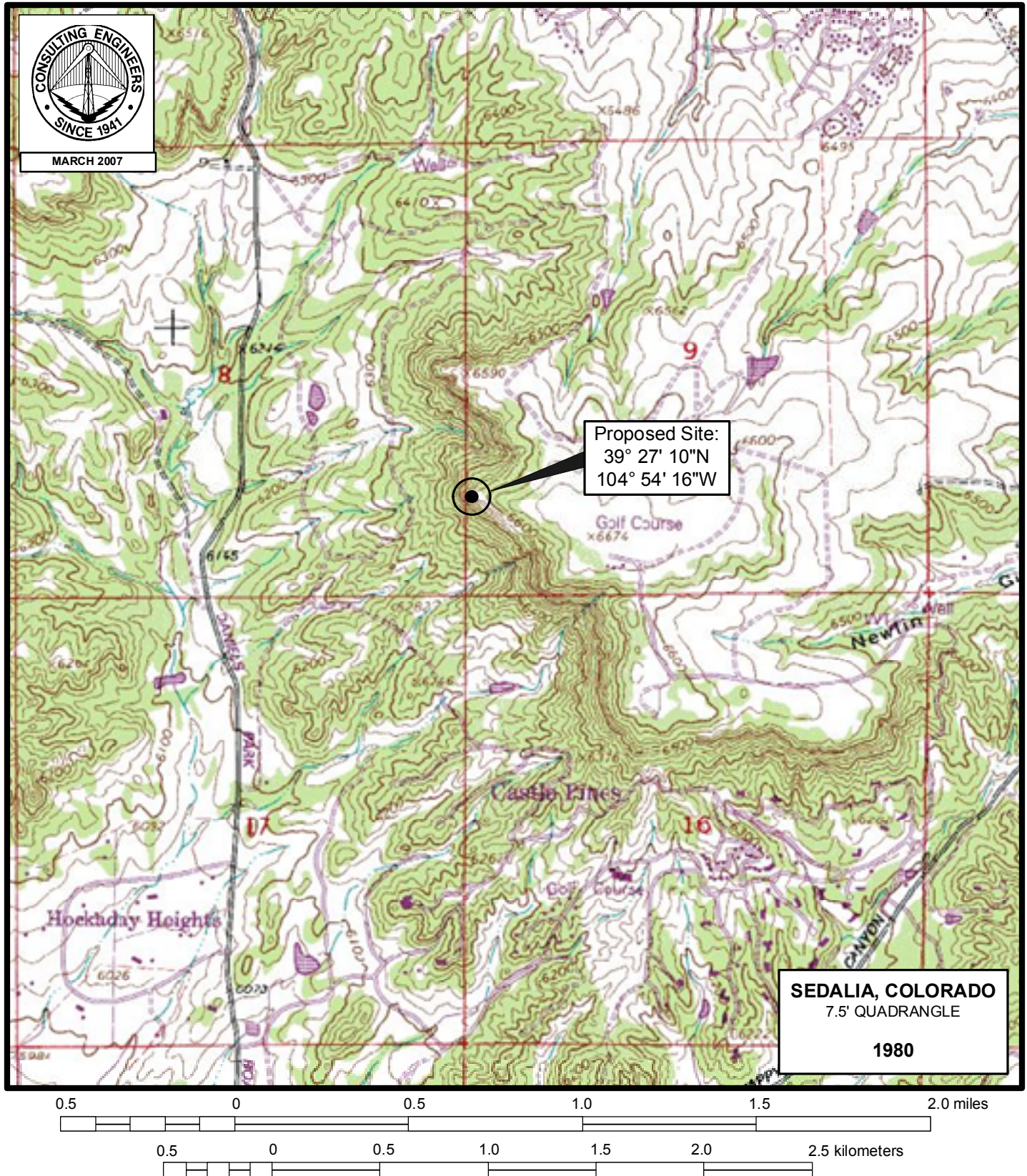
It is noted that this statement only addresses the potential for radiofrequency electromagnetic field exposure. All other aspects of the environmental processing analysis are the responsibility of the applicant.

Charles A. Cooper

du Treil, Lundin & Rackley, Inc.  
201 Fletcher Avenue  
Sarasota, Florida 34237  
941.329.6000

March 2, 2007

Figure 1



## PROPOSED ALLOTMENT REFERENCE SITE LOCATION

RADIO STATION KGDQ(FM)  
CENTENNIAL, COLORADO  
CH 270C3 9.5 KW 163 M

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

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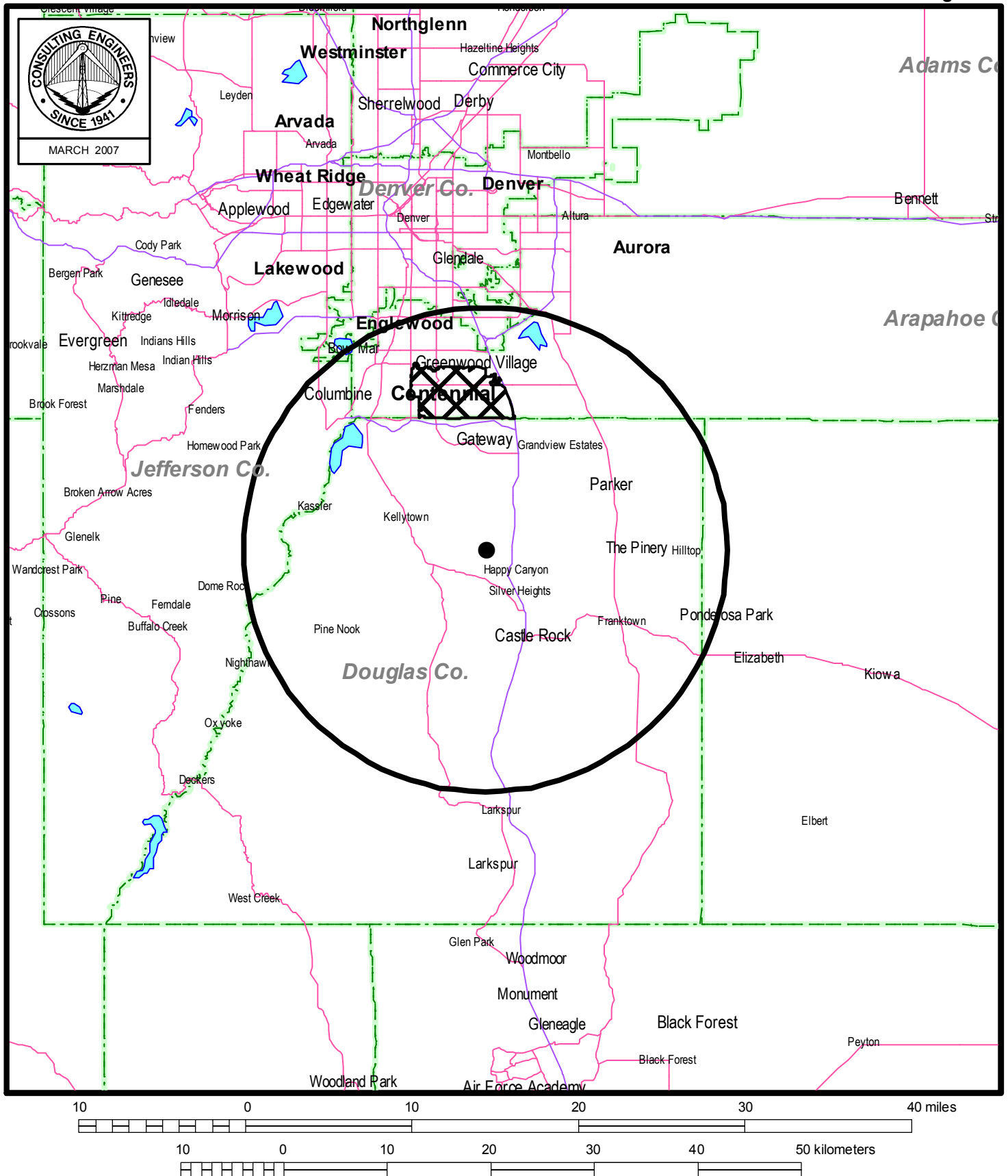
Channel 270C3 Centennial, Colorado Allocation Study  
Proposed Reference Site

39° 27' 10" North Latitude  
104° 54' 16" West Longitude

Call Id	City St	File Status Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km)
KLDV 12354	MORRISON CO	BLD LIC C	19860908KB	216C 91.1	100 356	Y	39-36-00 105-12-35	N 302.1	30.92	31.0
<i>(Separation distance rounds to 31 kilometers. No allocation issue.)</i>										
KLDV 12354	MORRISON CO	BPED CP C	20040315ACB	216C0 91.1	100 356	N	39-36-00 105-12-35	N 302.1	30.92	27.0
KTNI-FM 38629	STRASBURG CO	BLH LIC C	20050617ABO	268C 101.5	97 625	N	39-55-22 103-58-18	Y 56.5	95.53	96.0
<i>(Separation distance rounds to 96 kilometers. No allocation issue.)</i>										
KGDQ 70822	COLORADO CO	SP BLH LIC C	20050128ALV	270C2 101.9	50 150	N	39-08-11 104-55-34	N 183.0	35.17	
<i>(Applicant's existing facility.)</i>										
KIGN 56234	BURNS WY	BMLH LIC C	19950920KD	270C2 101.9	50 150	N	41-07-01 104-40-07	N 6.1	185.87	177.0
KSMT 57336	BRECKENRIDG CO	BPH APP C	20061002BWT	271A 102.1	6 -64	Y	39-29-44 106-01-44	Y 273.2	96.87	89.0
KRKY-FM 76780	ESTES PARK CO	BLH LIC C	20070117AAE	271A 102.1	6 25	N	40-21-38 105-31-12	N 332.7	113.71	89.0
KCUV 37028	GREENWOOD CO	V BLH LIC C	20051110ACE	272A 102.3	6 64	N	39-39-55 104-51-38	Y 9.0	23.89	42.0
<i>(KCUV(FM) is proposing to move to a location that would be fully-spaced to the herein proposed reference location. See next record.)</i>										
KCUV 37028	GREENWOOD CO	V BPH APP C	20061002BTX	272A 102.3	1 238	Y	39-43-59 105-14-10	N 317.7	42.19	42.0



Figure 3

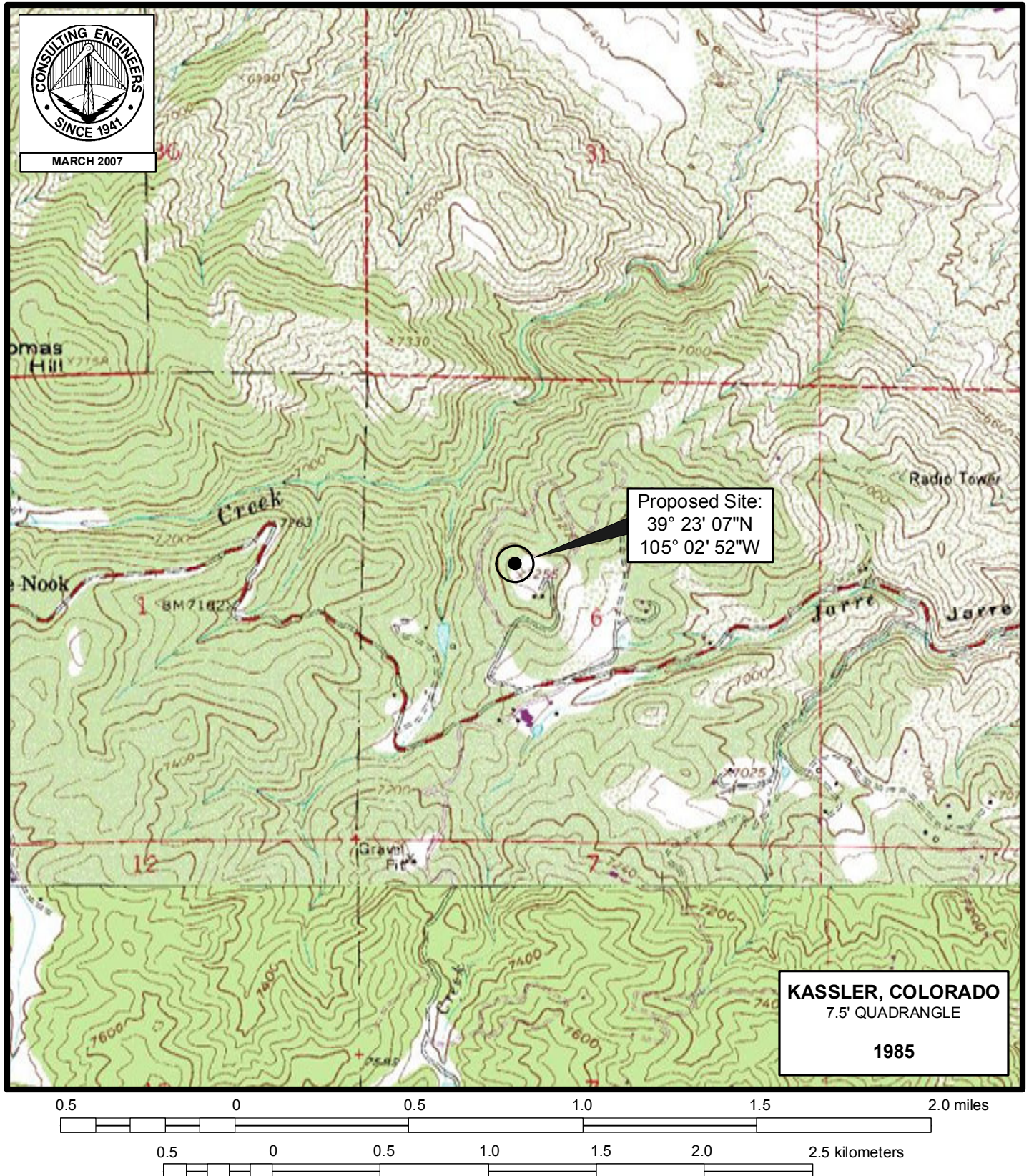


**PROPOSED REFERENCE SITE 70 DBU PREDICTED COVERAGE CONTOUR  
ASSUMING UNIFORM TERRAIN**

RADIO STATION KGDQ(FM)  
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Figure 4

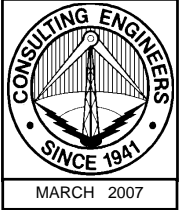


## PROPOSED TRANSMITTER LOCATION

RADIO STATION KGDQ(FM)  
CENTENNIAL, COLORADO  
CH 270C3 9.5 KW 163 M

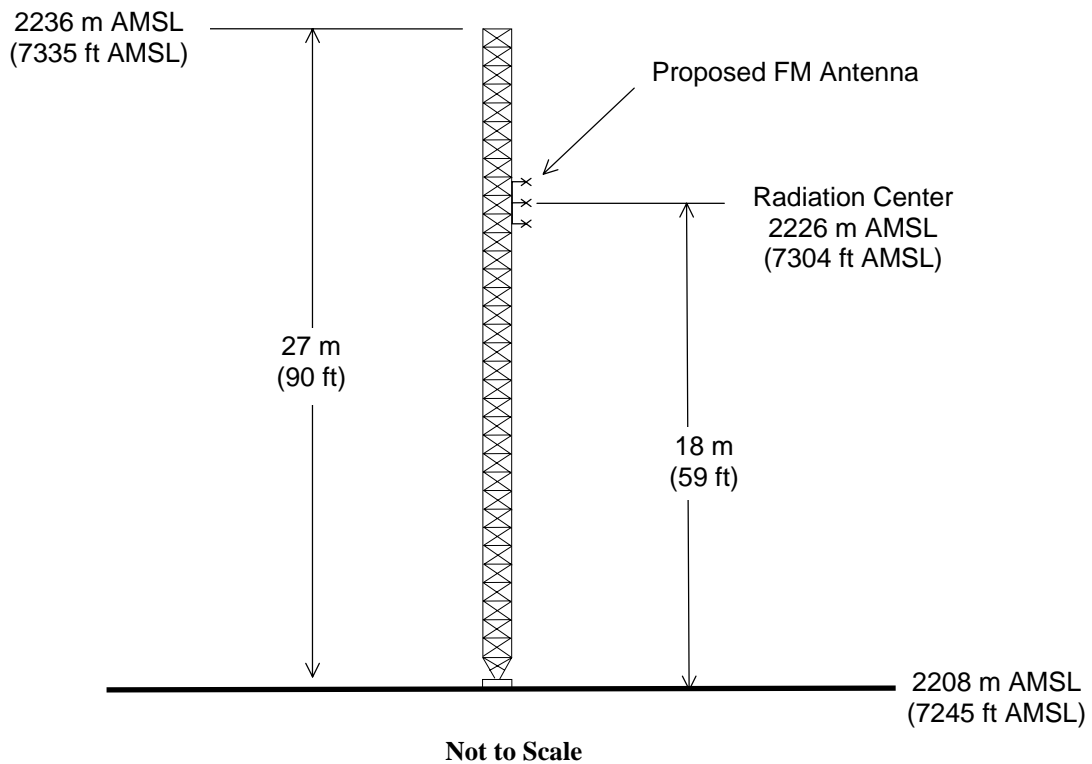
du Treil, Lundin & Rackley, Inc. Sarasota, Florida

Figure 5



ASRN: N/A

NAD 27  
Site Coordinates:  
39° 23' 07" N  
105° 02' 52" W



## ANTENNA AND SUPPORTING STRUCTURE

RADIO STATION KGDQ(FM)

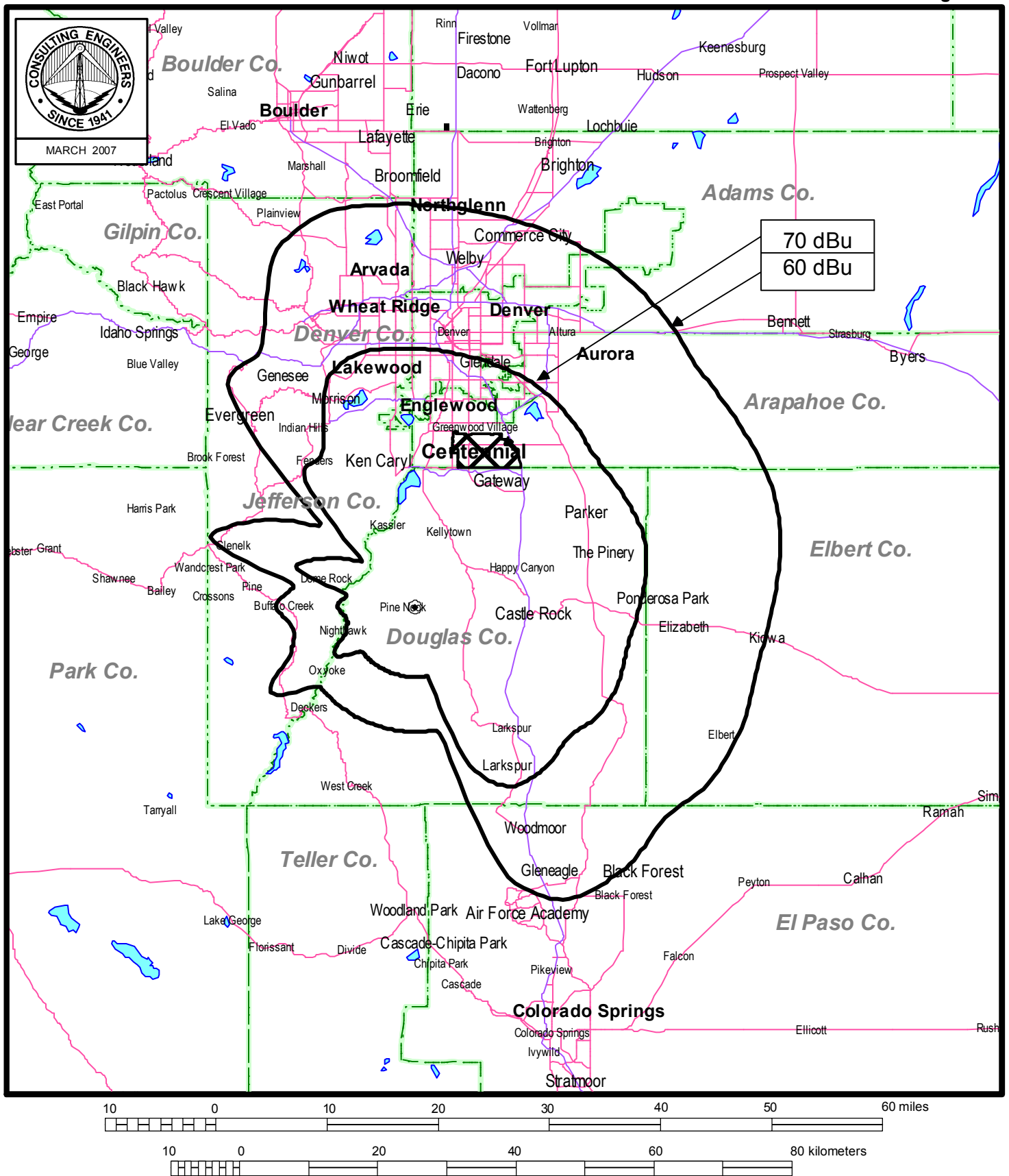
CENTENNIAL, COLORADO

CH 270C3 9.5 KW 163 M

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Figure 6



# PROPOSED TRANSMITTER SITE PREDICTED COVERAGE CONTOURS

RADIO STATION KGDK(FM)  
CENTENNIAL, COLORADO  
CH 270C3 9.5 KW 163 M

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

Call Id	City St	Status	File Num	Channel Freq	ERP HAAT	DA Id	Latitude Longitude	73 215	Bear	Dist. (km)	Req. (km)
KLDV 12354	MORRISON CO	LIC C	19860908KB	216C 91.1	100 356	Y	39-36-00 105-12-35	N	329.8	27.61	31.0
(KLDV(FM) has filed an application for license (BLED-20060803AOY) to implement its construction permit which is fully-spaced to the herein proposed facility (see next record). Therefore, no allocation issue.)											
KLDV 12354	MORRISON CO	CP C	20040315ACB	216C0 91.1	100 356	N	39-36-00 105-12-35	N	329.8	27.61	27.0
KTNI-FM 38629	STRASBURG CO	LIC C	20050617ABO	268C 101.5	97 625	N	39-55-22 103-58-18	Y	56.7	109.96	96.0
KTUN 44012	EAGLE CO	LIC C	20050915ADE	269C1 101.7	12 667	Y	39-44-18 106-47-58	Y	285.2	155.56	144.0
KTUN 44012	EAGLE CO	APP C	20061002BXC	269C1 101.7	10.5 696	N	39-46-32 106-51-48	N	286.2	161.89	144.0
KGDQ 70822	COLORADO CO	SP LIC C	20050128ALV	270C2 101.9	50 150	N	39-08-11 104-55-34	N	159.2	29.56	
(Applicant's existing facility.)											
KIGN 56234	BURNS WY	LIC C	19950920KD	270C2 101.9	50 150	N	41-07-01 104-40-07	N	9.4	194.97	177.0
KSMT 57336	BRECKENRIDG CO	BPH APP C	20061002BWT	271A 102.1	6 -64	Y	39-29-44 106-01-44	Y	278.6	85.35	89.0
(Section 73.215 processing requested towards KSMT(FM) on Channel 271A assigned to Breckenridge, Colorado. See Sheet 2 of Figure 7).											
KRKY-FM 76780	ESTES PARK CO	LIC C	20070117AAE	271A 102.1	6 25	N	40-21-38 105-31-12	N	339.8	115.58	89.0
KCUV 37028	GREENWOOD CO	V LIC C	20051110ACE	272A 102.3	6 64	N	39-39-55 104-51-38	Y	27.2	35.01	42.0
(KCUV(FM) is proposing to move to a location that would be fully-spaced to the herein proposed reference location. See next record.)											
KCUV 37028	GREENWOOD CO	V APP C	20061002BTX	272A 102.3	1 238	Y	39-43-59 105-14-10	N	337.4	41.87	42.0
(Separation distance rounds to 42 kilometers. No allocation issue.)											



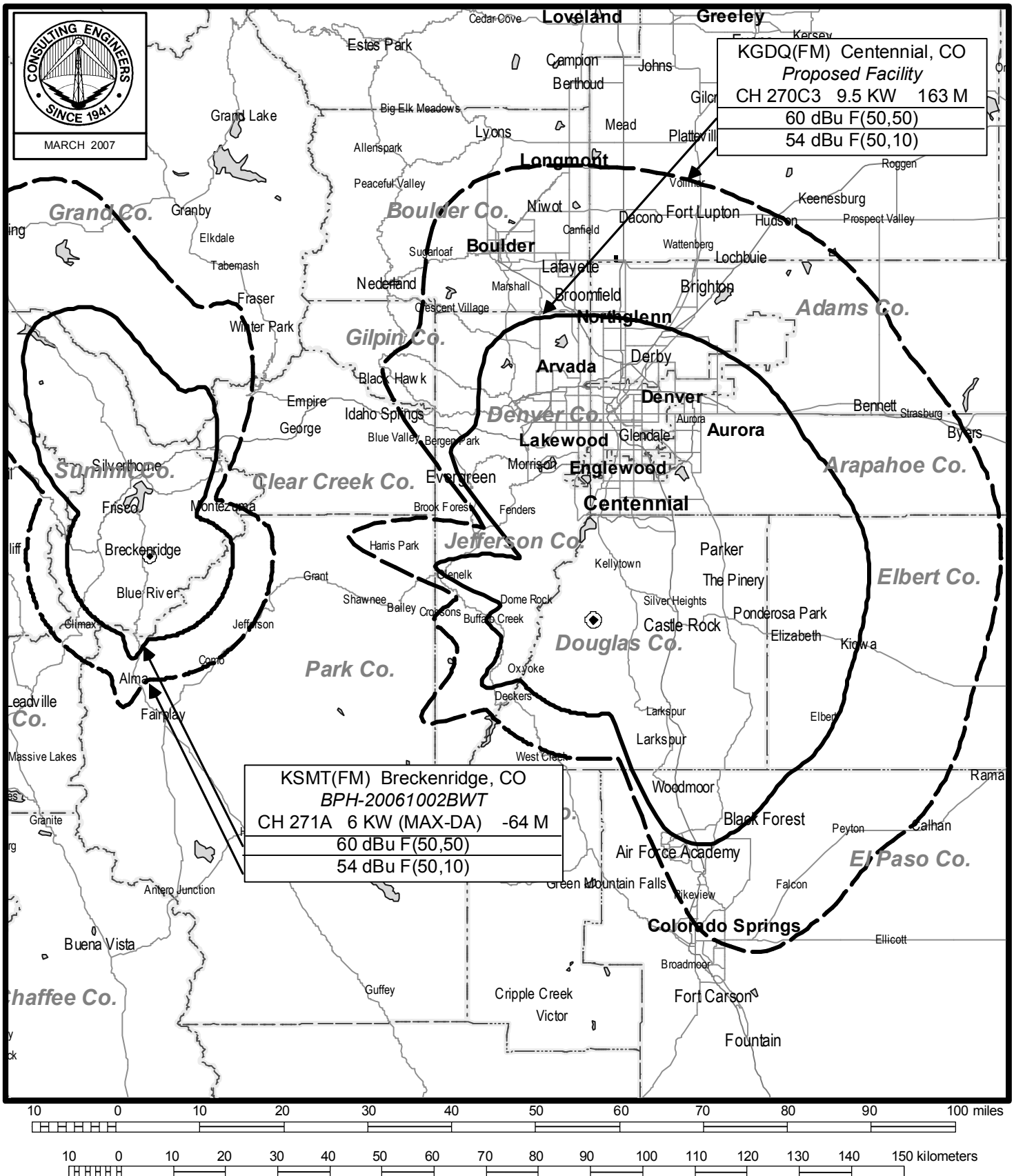


Figure 8

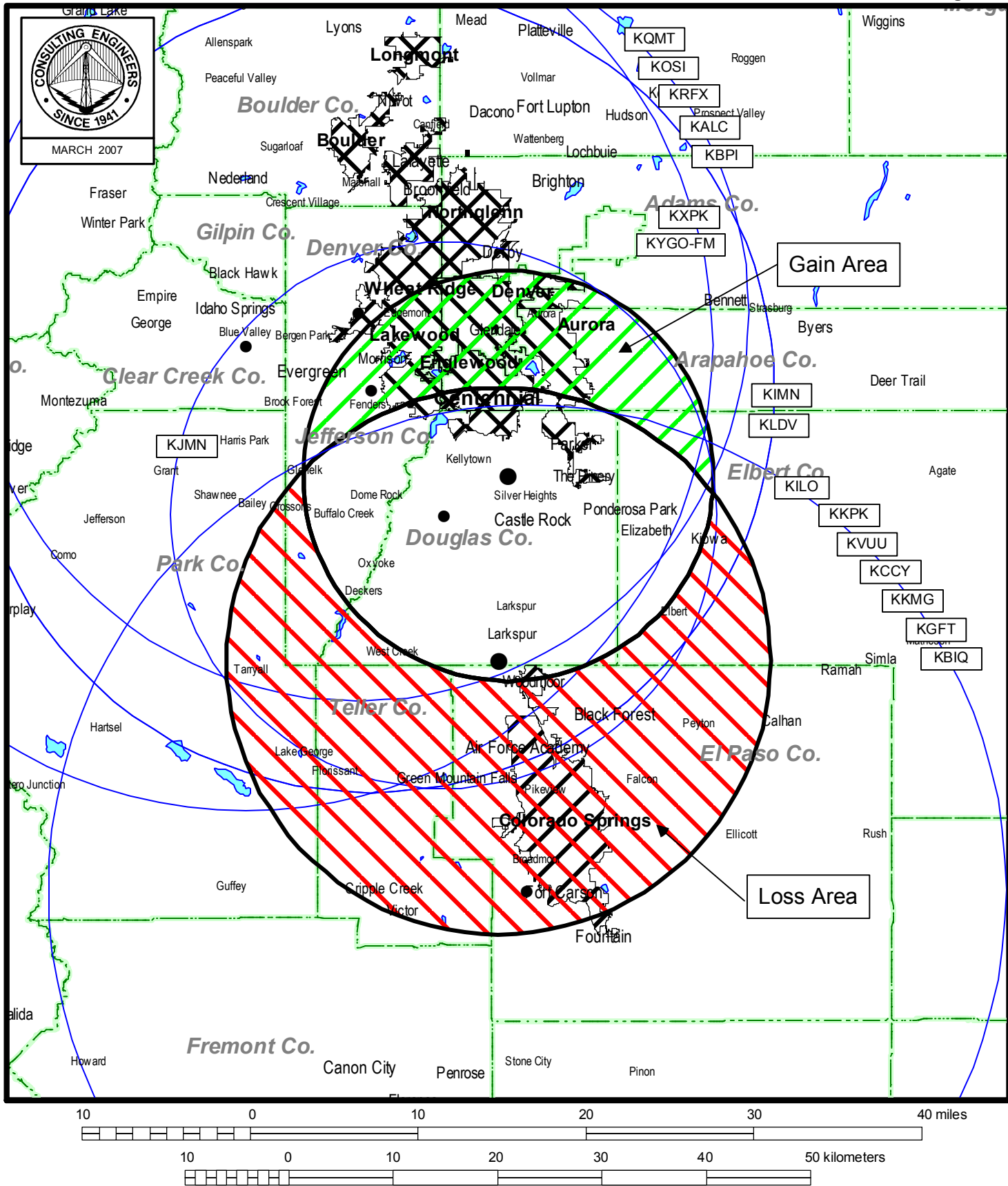
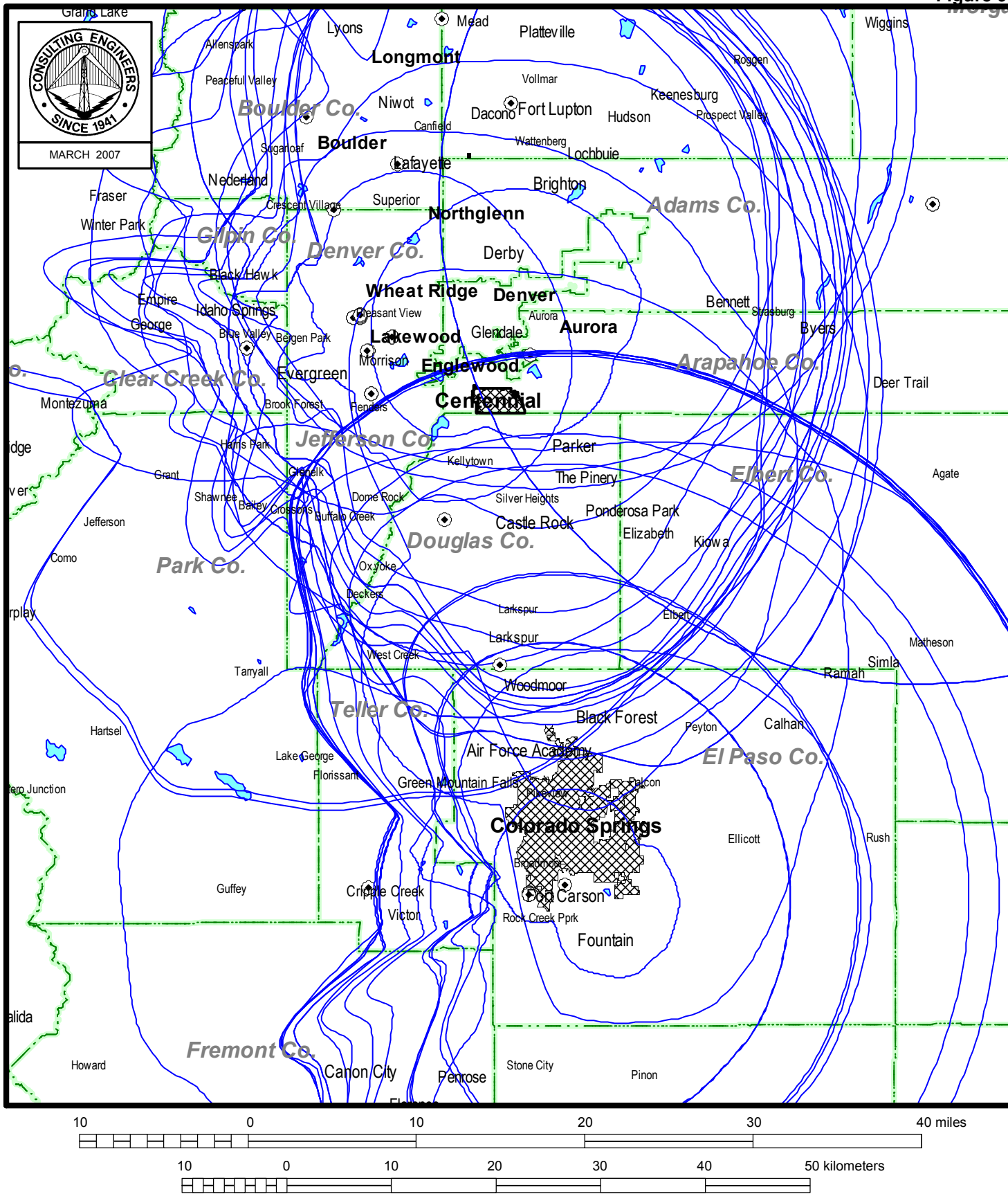


Figure 9



**OTHER FM SERVICES PROVIDING PROTECTED SERVICE TO  
COLORADO SPRINGS/CENTENNIAL**

**RADIO STATION KGDQ(FM)  
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